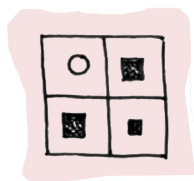
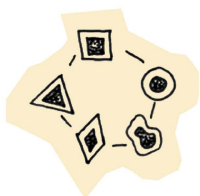


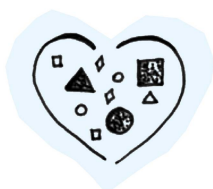
HOME SHARING



CO-HOUSING



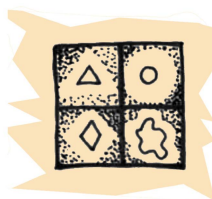
MULTIGENERATIONAL LIVING



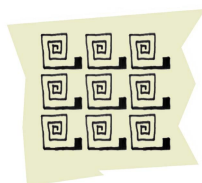
AGEING IN PLACE



SQUATTING



COMPACT LIVING



ALTERNATIVE HOUSING

A litmus test and a tool for social sustainability



TAMPEREEN TEKNILLINEN YLIOPISTO
TAMPERE UNIVERSITY OF TECHNOLOGY

MASTER OF SCIENCE THESIS
DARINA BUNAK

A L T E R N A T I V E H O U S I N G

**A litmus test and a tool for social
sustainability**

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T a m p e r e
2 0 1 8

The topic, examiner and language
approved by the Vice Dean of
the Faculty of Business and Built
Environment on 25th June 2018

TAMPERE UNIVERSITY OF TECHNOLOGY
Master's Degree Programme in Architecture

BUNAK, DARINA

Alternative Housing:

A Litmus Test and a Tool for Social Sustainability

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Master of Science Thesis, 100 pages

November 2018

Abstract

KEYWORDS: Architecture, Sustainability, Housing, Alternative housing, Social sustainability, Housing trends, Built environment

Social sustainability has a number of features that complicate its direct study. It is simultaneously a state and a process, something hard to define but important to support. This research suggests a mediate approach. It states that built environment, and especially housing, inevitably reflects social processes within the urbanised society of today. Moreover, it views alternative housing as a self-adjustment mechanism of social sustainability that can be gradually converted into a tool deliberately used by architects, urban planners and authorities to firm city's social sustainability.

Apparently, an unprecedented socio-economic pressure on housing nowadays causes its transformation and forms new, alternative, options that keep overall sustainability balanced. The current study presents an exemplary cross-section through this transformation edge. Its following in-depth exploration reveals internal and external forces that form the alternative housing trends. Further analysis suggests conditions, under which these marginal practices could be integrated into conventional development schemes and the role of architects in that integration.

Due to the global scale of the research problem, the analysis is based on international projects. However, the trends are viewed through the prism of Finnish reality. The resulting comparison outlines trajectories for future exchange in experience and ideas in the fields of architecture and urban planning.

In addition to that, this thesis work should benefit general understanding of the relation between social sustainability and built environment. Further studies in this direction could eventually reveal possibilities to intentionally modify social sustainability processes through architecture and urban planning.

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P r e f a c e

“Architecture and the built form as a key medium for new participatory forms of living, organising and working”

(Vasudevan, 2017b)

This thesis inherently reflects the multifaceted nature of architectural profession. On the one hand, it focuses on intangible – the social factors that activate alternative housing trends in times of change. That emphasises the social role of an architect, whose superpower – a synergy of creativity, knowledge and experience – is equally able to solve micro and macro problems. Simultaneously, this social aspect refers to architects’ civic responsibility, which obliges architects to voice their expert opinion when much is at stake.

On the other hand, this work describes intangible in very ‘tangible’ terms – through architectural programmes of the existing alternative housing projects. Such translation of ‘soft’ matters into ‘hard’ terms is a routine procedure for architects, who successfully manage to embody client’s wishes of today into built reality of tomorrow. This aspect refers to the practical information and typological investigations that lead architects from promising ideas to finished buildings.

Unfortunately, on daily basis, technicalities tend to attract most attention and effort. Moreover, they often convert architectural design process into an established routine with no space for experiment. However, experiment remains the only way to discoveries and discoveries, in turn, remain a synonym of progress. Since our quickly changing society aims at progressive, socially sustainable future, this thesis could help direct creative powers of architecture towards a search for alternative solutions in times when conventional models do not work.

A c k n o w l e d g e m e n t s

First of all, I would like to express my sincerest gratitude to my supervisor, Minna Chudoba, who kindly agreed to take this difficult role. She believed in my ideas and helped me throughout this work with her extensive expertise and patience.

I also cordially thank my boss, Henrik Hansted Jensen, and the whole DOMUS Arkitekter team, who inspired me with both their kindness and their professionalism. Likewise, I am very thankful to my friend and a former classmate Natalia Batrakova for her help and invaluable advice. Without these wonderful people I would have never achieved my goal.

My last but not least thanks go to those who did not believe in me. I am very thankful to each of you for questioning my abilities and wounding my ego. You did a great job pushing me to the limits; please, continue.

L i s t o f a b b r e v i a t i o n s a n d k e y d e f i n i t i o n s

AFL-CIO – The American Federation of Labor and Congress of Industrial Organizations

ARA – Asumisen rahoitus- ja kehittämiskeskus – The Housing Finance and Development Center (Finland)

CLT – Cross laminated timber

CTAC – Community Technical Aid Centres established in 1970s in UK

RIBA – Royal Institute of British Architects

3D – 3-dimensional

DIY – “Do it yourself” – the method of building, modifying, or repairing things without the direct aid of experts or professionals

GEN – Global Ecovillage Network

HOAS – Helsingin Seudun Opiskelija-asuntosäätiö – The Foundation for Student Housing in the Helsinki Region

IAHSA – International Association of Homes and Services for the Ageing

IFHP – International Federation for Housing and Planning

NAL – Nuorisotasuntoliitto – Finnish Youth Housing Association

NORC – Naturally Occurring Retirement Community

OWCH – Older Women’s Co-Housing

RV – Recreational vehicle – a vehicle used for camping or other recreational activities

SDG – 17 Sustainable Development Goals from The 2030 Agenda for Sustainable Development

SDG 11 – Sustainable Development Goal 11 – determines to “*make cities and human settlements inclusive, safe, resilient and sustainable*”

Social sustainability balance – a healthy condition of city’s social factors that benefits to stable sustainable development of a city (or another urban unit, e.g. a neighbourhood or a district). Due to the inseparable unity among all sustainability aspects, social sustainability balance is a rather conditional category that cannot exist per se, but can benefit to the overall sustainability balance (below)

Sustainability balance – an equilibrium in city’s existence found through a harmonious proportion of all local sustainability aspects. Characterised by a positive state and a stable sustainable development of a city. Analogous to the centre of mass in Physics with consequent rules applied to define its stability

TT – Technological transitions

TTT – Technological transitions theory

1.1 Purpose of my research

The purpose of my research is to study alternative housing trends as a social sustainability phenomenon. Due to the complex nature of the social component, I firstly approach it in its full connection to all the concomitant aspects (e.g. economy, ecology, politics) and only later I segregate issues closely related to the social field. I investigate internal and external forces that shape alternative housing practices and identify what social needs, unsatisfied by conventional housing types, bring them to life.

I base my approach on the presumption that built environment, and especially housing, inevitably reflects changes within the urbanised society of today. The increasing pressure on housing nowadays causes its transformation and forms new options. Thus, lasting alternative housing trends serve as a litmus test indicating societal changes and reflect cavities carved by those changes in the housing market. At the same time, they partially fulfil those unsatisfied societal demands through unconventional residential models. The latter function makes them a natural tool for (social) sustainability, activated to keep all aspects of life in balance and to ensure unobstructed sustainable development in times of rapid change.

The objective of my work is to identify potential alternative housing trends, analyse their roots and estimate their chances to join common practices of tomorrow. A descriptive benchmark of reference projects collected for each trend shall help the estimation by outlining characteristic features, which attract people and fulfil their (social) needs. Therefore, it shall establish connections between social demands and architectural solutions. Exemplary projects would also benefit further analysis of conditions, under which the marginal alternative housing practices could become a legitimate part of conventional development. A mix of Finnish and international references shall allow some comparison and set vectors for experience exchange. Notably, the role of architects in all the above processes shall become a leitmotiv of the entire work, due to my architectural vista. The latter can also bring some ideas for future development of alternative housing trends based on their relation to (social) sustainability.

1.2 Context and aspirations

1.2.1 Why housing?

The context of my work is grounded in the urban agenda of today established by the three documents – the 2030 Agenda (Transforming Our World 2015), the New Urban Agenda (New Urban Agenda 2016) and the Nordic Declaration on the Implementation of the New Urban Agenda (Nordic Declaration 2016). The problems discussed are global, which makes my work actual worldwide; consequently, it contains international examples and references.

However, since my research is held within a Finnish university, I rely on Finnish urban reality and use Nordic countries as the closest reference material. The resulting comparison between the global and the local opens some potential development paths for the trends under discussion. Below, I outline my aspiration sources and explain why I chose to look at the arising housing challenges from the social sustainability vista.

In September 2015, UN General Assembly adopted a document called Transforming Our World: The 2030 Agenda for Sustainable Development. It contains 17 goals (aka Sustainable Development Goals or SDG) and 169 targets that should be implemented by 2030 to ensure sustainable future for the world. Goal 11 (SDG 11) determines to “make cities and human settlements



[2]

inclusive, safe, resilient and sustainable” (Transforming Our World 2015, 12). This goal is a response to the new phase of urbanisation achieved on Earth and the challenges it brings. Since fast-growing urban population already presents the majority, cities become the focus of attention from all perspectives, incl. economic, ecological and social. Urban sustainability becomes the main concern of the global agenda. In other words, the way cities develop and the problems they meet will define the future of humanity. (Transforming Our World 2015)



In this context, my work should be viewed as a search for practical solutions. Two targets within SDG 11 inspired it, namely “(11.1) By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums” and “(11.3) By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries” (Transforming Our World 2015, 18). These targets link social sustainability with built environment and stress the role of inclusive, participatory and integrated approach in housing development to achieve Sustainable Development Goal 11.

The above ideas were deepened in October 2016, during the United Nations Conference on Housing and Sustainable Urban Development (aka Habitat III), which produced Quito Declaration on Sustainable Cities and Human Settlements for All, more known as New Urban Agenda. The latter contributed to the 2030 Agenda and SDG11 in particular by setting the shared vision of sustainable cities and human settlements, defining principles and commitments, stating the universal call for action, and introducing the implementation plan.

The New Urban Agenda names urbanisation “one of the 21st century’s most transformative trends”, as “by 2050 the world urban population is expected to nearly double” (New Urban Agenda 2016, 2). Importantly, it also recognises adequate housing as a part of the adequate standard of living and expects it to face massive challenges. To overcome them, it suggests that we should

“readdress the way we plan, finance, develop, govern and manage cities and human settlements...”. (New Urban Agenda 2016, 5)

The Shared Vision of New Urban Agenda is based on “cities for all” and ensures that “all inhabitants...are able to inhabit and produce just, safe, healthy, accessible, affordable, resilient, and sustainable cities and human settlements”. (New Urban Agenda 2016, 3)

These key notes defined the direction of my study. The idea that people make cities, which lies in the core of the New Urban Agenda, coupled with the declared participatory approach, made me search for solutions that were already found by people and exist as bottom-up initiatives, but which were left at the periphery of conventional urban planning. I presumed they would come upfront once allowed by the new paradigm at the time of emergency, when fast changes in lifestyle shake social sustainability and simultaneously challenge built environment.

The regional context concerning the urban agenda (and housing in particular) can be seen through the 2 main documents, namely the Urban Agenda for the EU and the Nordic Declaration on the Implementation of the New Urban Agenda.

The Urban Agenda for the EU was adopted on 30 May 2016, in Amsterdam, the Netherlands. The document, also named ‘Pact of Amsterdam’, stresses the importance of sustainable development for cities in the European Union as “one of the most urbanised areas in the world” (Urban Agenda for the EU 2016, 3). By 2050, the percentage of urban population in Europe is expected to reach 80% and Pact of Amsterdam “strives to involve Urban Authorities in achieving Better Regulation, Better Funding and Better Knowledge” (Urban Agenda for the EU 2016, 3) to face the challenge. Notably, housing is on the list of Priority Themes (Nr 10.4), aimed to “guide the actions of the Urban Agenda for the EU”. (Urban Agenda for the EU 2016, 7)



In December 2016, the next important step was made. A regional follow up of Habitat III - the conference Nordic Urban Ways – Implementing the New Urban Agenda was held in Stockholm to summarise how Nordic countries plan to act. The resulting document - the Nordic Declaration on the Implementation of the New Urban Agenda - states that “sustainable urban development as outlined in the New Urban Agenda is essential to achieve the 2030 Agenda”. Notably, it acknowledges that

“cities are complex, ever-changing systems, their adaptive capacity is essential” (Nordic Declaration 2016).

This statement correlates with my research direction. If cities can adapt, then solutions for upcoming challenges should be already born at the edge of transition as a natural reaction of the ever-changing system to the new forces.

Out of the 6 principles, which the Nordic Declaration names fundamental for sustainable urban development in the Nordic region, 3 directly relate to my work:

- + **Sustainable urban participation** – collaboration between citizens, civil society and local government; capacity building and broaden inclusive platforms; age, gender and socio-economic responsive approaches leaving no one behind.[vi]
- + **Sustainable urban housing** – age- and gender-responsive; wide range and mix of housing, strengthening affordable options; integrated housing approaches. [ix]
- + **Sustainable urban culture and lifestyles** – revitalize urban areas to promote diversity; strengthen social and cultural participation to support transition; adopting a mix of sustainable lifestyles and promoting sustainable consumption and production patterns. [xi] (Nordic Declaration 2016)

In fact, each of the alternative housing trends reviewed in this study responses to these principles, although generally they all belong in *Sustainable urban housing* category. For example, co-housing trends fully illustrate *Urban participation*, so does multigenerational living, which also brings a great share of *Sustainable urban culture and lifestyle*.

1.2.2 Why Social Sustainability?

Nonetheless, discovering potential housing trends would not make much sense without understanding the social reasons behind their occurrence. Social sustainability vista shows emerging alternative solutions as means to restore social sustainability balance. It lets me identify problems through studying the natural remedies against them (which can change within time — depending on circumstances).

Importantly, this reverse study avoids risk of seeing a panacea in the newly discovered solutions; it keeps our eyes open for every change in the field to see social roots of those changes, not their physical form. Instead of enriching the existing rigid typology with one or two newly accepted housing solutions, the suggested social sustainability approach to housing calls for flexibility and creative integration largely based on available resources. The reference projects discussed in this work prove it possible.

The variety of social factors found in this research stem from a number of well-known roots. The major 3 are **inequality**, **poverty** and **unemployment** (Eurostat 2016). They are especially hard on the young and the old and have far-reaching consequences that form the next circle of social phenomena. The EU government recognises these 3 key problems and names them the main challenges on the way towards Europe 2020.

In addition, the **accelerating demographic ageing** worsens the situation. Although the EU population grows, the workforce is shrinking due to low fertility rates of the past and the increasing average life span of today (Europe 2020 2010, 106). That cuts labour force and makes old-dependency ratio grow with increasing financial insecurity among active population. The highest unemployment rates are registered for young people (15-29 years old), non-EU citizens and people with low education. (Eurostat 2016, 37, 42)



Left: metaphors for the main three social problems Right: the three additional social challenges

High unemployment for the youth results in **increasing mobility** of young labour force - within the EU and worldwide. Unlike professionals in demand, whose labour mobility is also on the increase, young people are limited in budget and bound to highly affordable housing options. High demand and lack of affordable housing result in housing crisis in areas with significant economic growth (usually capitals and metropolitan regions). The price growth, in turn, widens the inequality gap and changes the social characteristics of population. For example, soaring housing prices, high economic insecurity, and longer life span of older dependents make young people form families later and enhance demand for single-oriented accommodation. Another impact is the increasing number of multigenerational households, which allow significant economy for younger members and constant care for elder ones.

Cédric Van Styvendael, Housing Europe's President, states that

“a lack of affordable housing and resulting exclusion are among the key risks faced by our cities, regions and societies at large”.

(Pittini et al. 2017, 4)

Summarising findings by the Housing Europe's latest review, he notes that "urbanisation, migration, labour mobility and demographic changes feed rising housing exclusion rates". (Pittini et al. 2017, 4)

His opinion relies on the following key findings in the review.

1. The housing prices are on the rise again and growing faster than incomes.
2. Inequality and housing exclusion fuel each other.
3. Political response to homelessness is insufficient in most EU countries; however, Finland is "the only country in the EU which managed to reverse this trend by implementing effective policies".
4. The pace of construction recovery in most states is behind the pace of price growth; that adds to the housing shortage, especially in areas, where population grows rapidly (big cities, metropolitan regions).
5. There is a clear territorial division in the above trends; the increasing population growth and the housing shortage in major cities meet an outward migration and shrinkage in the regions with fewer job opportunities.
6. Labour mobility and migration have risen, while social housing system is already extremely overloaded, hence additional solutions are required to solve the housing crisis.
7. The economic crisis proved very little inclination in policy makers to prioritise affordable, non-speculative housing; thus major changes should not be expected now, when the most acute phase is over. (Pittini et al. 2017, 10-11)

1.3 Target Audience

The social sustainability approach to housing problems demonstrated in this work benefits architects, urban planners, and policy makers by shifting the conventional vista and opening horizons to more creative solutions. The illustrative connection between social problems and built environment demonstrates how social balance is being naturally preserved via housing transformation. At the same time, the critical overview on the trends questions trend-based mass development and helps avoid costly mistakes in policy making. Some stakeholders and fellow architects might be more interested in the reference projects discussed, since the latter provide a concrete benchmark for further analysis and practical implementation.

At the same time, I suggest that architects pay more attention to the overall discussion on the closely intertwined social and housing problems emphasised in this work. In addition to the present housing situation, it concerns the future architectural agenda for housing and the role of architects in its formation. The analytical part, especially in the category 'What Architects Can' aims to inspire architects and urban planners to take a more active social position in their everyday practice.



[14] For those who define our urban tomorrow

1.4 Correlation with other studies

Research-wise, the following studies directed my work.

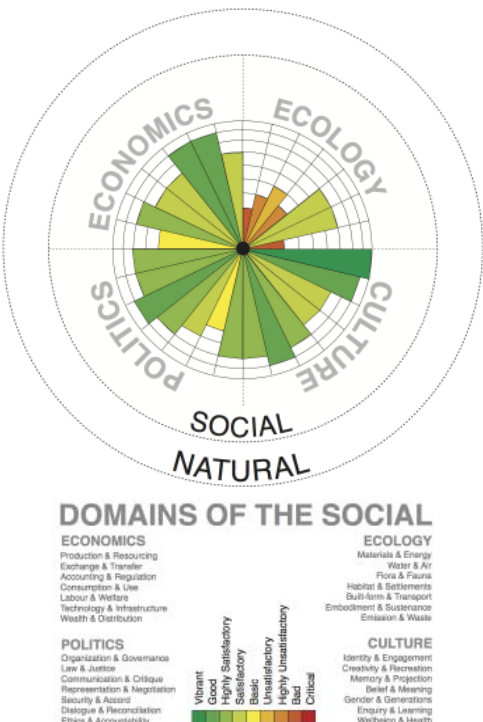
The general division into equally important 'Subjective' and 'Objective' indicators', suggested by Institute for social ecology, Frankfurt (Empacher, Wehling 1999, 37), brought the idea of Internal and External forces that counterbalance each other and thus define the equilibrium in sustainability system: people's needs (more subjective category) versus global processes (more objective category).

Another major influence stemmed from the variety of aspects and names found in academic works on sustainability models (e.g. Economic - Ecological - Social (Colantonio 2007, Graph 1), Economy - Ecology - Justice (Campbell 1996), Environmental - Economic - Social - Institutional (Valentin, Spangenberg 2000) etc.). This variety indicated some ongoing search in the field and gave me freedom to suggest my own division.

Moreover, empirical studies that assess social sustainability by locale – conducted by Social Life Group (Creating Strong Communities 2012; Bacon, Caistor-Arendar 2014), P. James (James 2015; James 2016; Circles of Social Life) and a few other authors – demonstrated further diversification and contextualisation of sustainability aspects. Social Life Group based their framework on the 4 social sustainability dimensions: Social and Cultural Life, Voice and Influence, Amenities and Infrastructure, Change in the Neighbourhood (Creating Strong Communities 2012; Bacon, Caistor-Arendar 2014). Meanwhile, in his Circles of Social Life, P. James named Economics, Ecology, Culture, and Politics as 4 domains of social life. At the same time, he suggested that "other domains could have been added" (James 2016, 31). That suggestion predefined my context-based approach to analysis and division of results.



[15] Indicators used by Social Life group to assess social sustainability in Sutton



[16] Domains of social life suggested by P. James

Notably, P. James questions the segregation of social aspect per se and views all other aspects as domains of social life. This critical notion coupled with the inseparable yet unsettled sustainability aspects recurring in the

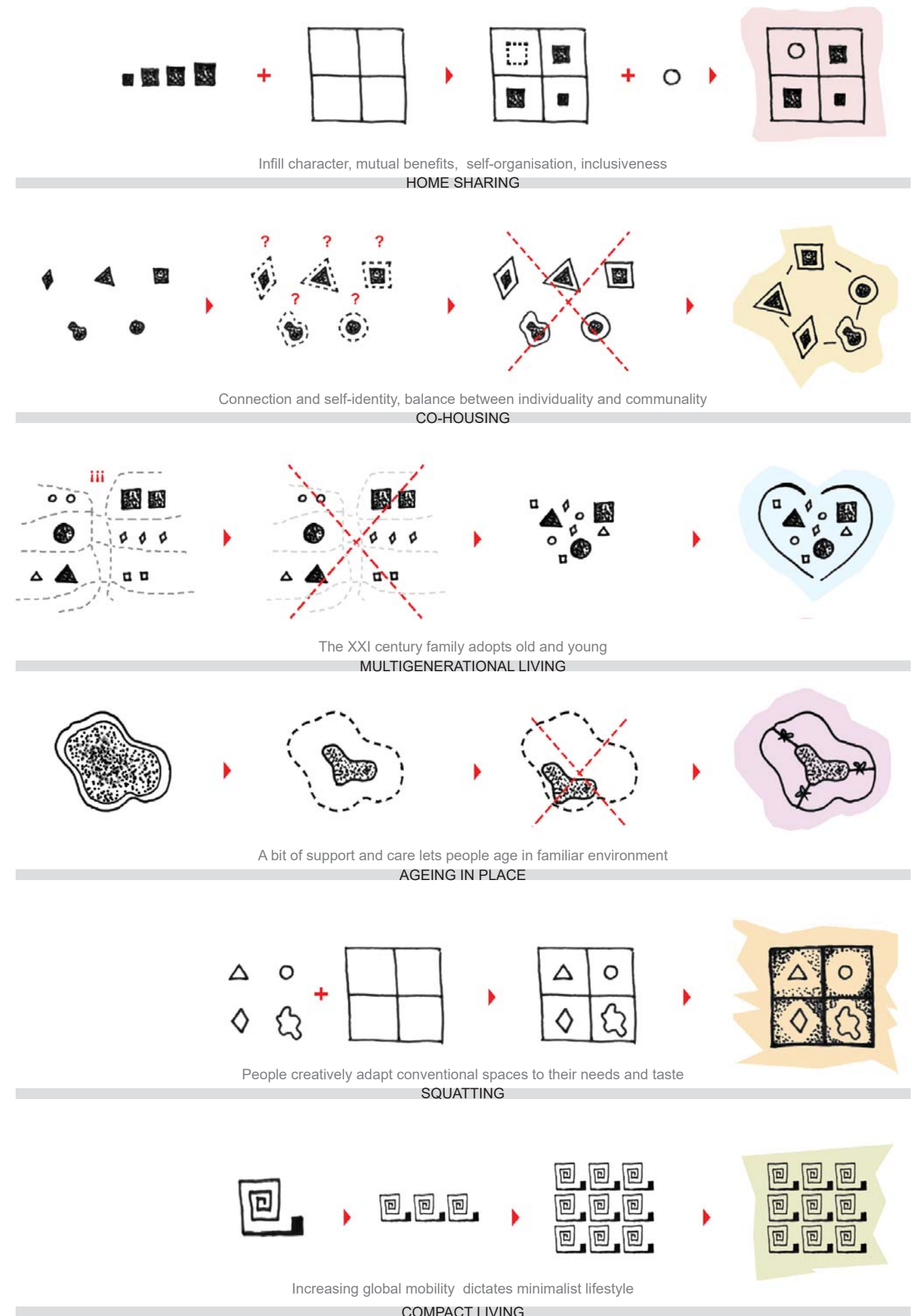
1 To compare the resulting tables - see (Omann, Spangenberg 2002).

academic literature led me to the conclusion that I shall conduct my research accordingly – keeping identified features undivided (with no separation into aspects) for as long as possible in order to preserve the synergetic nature of sustainability, save the value of the content, and avoid criticism on disputable matters.

Thus, the final separation of features in my thesis is research-specific; categories are based on the context (housing trends) to serve my research goals best. Internal forces (categories/domains/aspects) include: Shelter, Economic needs, Social needs, and Special dwelling requirements. External forces consist of: Economic change, Social change, Building stock, State malfunction, and Complex. Hence the three common focuses (Economics-, Social- and State-related aspects) are extended by those concerned with Built environment, as a consequence of my architectural vista. Ecology, in this case, happened to be too far from the focal point to appear as a self-standing force and remained dissolved within other categories.

Lastly, Technological Transition theory (TTT) by Frank W. Geels (Geels 2002) provided an important overview on the processes concerning alternative housing practices and their path towards conventional developments. His theory looks at housing as a big socio-technical configuration and lets me view alternative movements as a transition within it. Thus, TTT allows evaluation of success and even some comparison between alternative trends on their way to changing conventional housing.

[17] These logos accumulate characteristic features of each alternative housing trend discussed in this thesis



2 Research methods, limitations, and structure

Two main parts constitute this research. One of them is Past and Present of Social Sustainability, the other - Alternative Housing and its Role in (Social) Sustainability Balance of a City. The parts slightly differ by size, method, and material.

Past and Present of Social Sustainability is based on literature review and analysis. It involves international academic works on social sustainability and bordering disciplines. Moreover, in addition to the content analysis, some chronological systematisation appears. Alternative Housing and its Role in (Social) Sustainability Balance of a City is based on more various sources. Literature review here remains the main method, but is occasionally supplemented by personal experience.

This difference between the two parts stems from the nature of the subjects. Despite the relatively short history of social sustainability as a concept, it has already generated a fair amount of academic literature. Thus, the main challenge for my historical overview laid not in finding sources, but in choosing them objectively.

It was rather different with 'Alternative Housing...' part. The latest alternative trends, due to their novelty or underdevelopment, are not so well-covered by academics. At the same time, original web sources provide excessive information on each initiative, as they are written by the pioneers standing at the roots of those alternative housing movements. Digital editions of newspapers and journals together with specialised sites present valuable raw data on the latest projects.

The following factors limited my work. Firstly, English language defined my choice of sources, although I did, occasionally, use automated translations from other languages. Secondly, a number of criteria were applied to build a solid list of alternative housing trends. Hence only recognised and mature urban trends with a clear vector towards common housing were carefully picked among international alternative housing practices. They are:

HOME SHARING, CO-HOUSING, MULTIGENERATIONAL LIVING, AGEING IN PLACE, SQUATTING, COMPACT LIVING.

None of the above trends is completely new, but they all experience a new surge in their popularity, which must be forced by some changes - social, economic or political. Therefore, they perfectly fit my research goal to study the bond between housing and social sustainability.

At the same time, these housing practices are still only trends meaning such challenges as unsettled typology, similar features, and constant modifications. Their borders occasionally overlap making some examples hardly attributable. The variable vocabulary used in sources clearly demonstrates that. Importantly, for each trend I use its common name² without going deep into naming and classification disputes. I do it to avoid unnecessary neologisms, make further reader's search easier, and eliminate speculating on typology, as the latter stays beyond the purpose of my work. In other words, I study what we have to understand why we have it.

² The one, under which this trend can be easily found in the literature or via web search.

Thirdly, this thesis is written within a Finnish university and naturally reflects the knowledge of Finnish architectural reality I acquired during my Master's studies. The work would be different without its cultural and geographical context, as the latter influenced both the choice of material and the text structure. Hence Finnish housing practice naturally became the reference point for all the housing trends under discussion.

The above fact is reflected in the dual text structure. Most of the alternative housing trends are shown from international and Finnish perspectives; the paragraphs are respectively named 'Internationally' and 'In Finland'. Whenever possible, references are based on projects from Nordic region; the next priority is given to Western Europe and European Union in general.

A concise set of conclusions specific to each trend critically summarises key findings. They concern both built and social sides of the phenomenon, as can be seen from the headings: What People Want, What Causes This Trend, (Potential) Flaws, What is Missing, What Architects Can. The latter – What Architects Can – logically completes my analysis with suggestions. They often include design ideas and show how each housing trend may be adapted for conventional development practices to fight dwelling shortage.

When talking about ideas and possibilities, I do not go deep into questions of policies and regulations. Firstly, they vary from country to country. Secondly, the practice shows that when a trend reaches certain level of maturity, it is recognised by authorities, hence relevant policies are introduced.

KEY TO MY NOTES

[SOME EXEMPLARY ALTERNATIVE TREND] – SUMMARY

LITMUS
function

WHAT PEOPLE WANT: ... (varies depending on a trend)

= summarises subjective features related to internal forces (born within society)
= citizens' needs and wishes

WHAT CAUSES THIS TREND: ... (varies depending on a trend)

= summarises objective features related to external forces (caused by general processes)
= global changes and local challenges beyond citizens' direct influence

(POTENTIAL) FLAWS: ... (varies depending on a trend)

= analyses what features in the trend suppress its (social) sustainability potential
= analyses what features can interact or stop trend's adaptation for conventional housing practices

WHAT IS MISSING: ... (varies depending on a trend)

= suggests measures to prevent or eliminate (POTENTIAL) FLAWS

WHAT ARCHITECTS CAN: ... (varies depending on a trend)

= opens up the architectural aspect of WHAT IS MISSING
= presumes gradual conversion from an alternative trend into a conventional housing option

TOOL
function

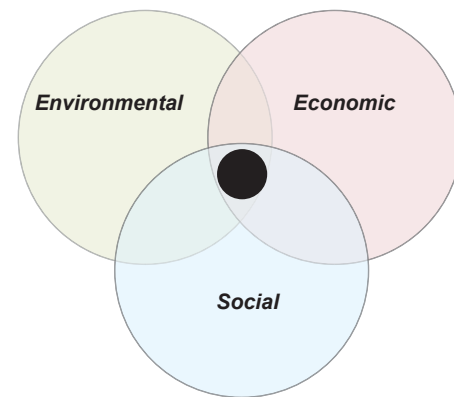
NB! = my thoughts on the current matter that might add to the discussion, but would be hard to gather into a separate chapter

3 Past and present of social sustainability

Social sustainability is often referred to as 'the third pillar'. This tradition stems from the triad model: sustainability balance supported by 3 pillars – its economic, ecological and social dimensions. In some illustrations, dimensions are literally visualised as pillars; in others, they are shown as 3 equal circles, whose intersection marks sustainability balance. The latter diagram is probably most used in unspecialised literature.

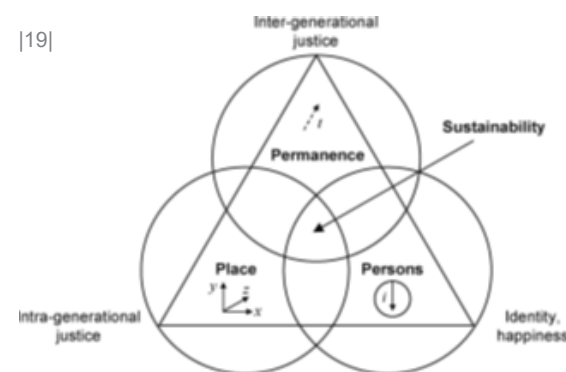


[18 – a] A well-known 3-pillar model

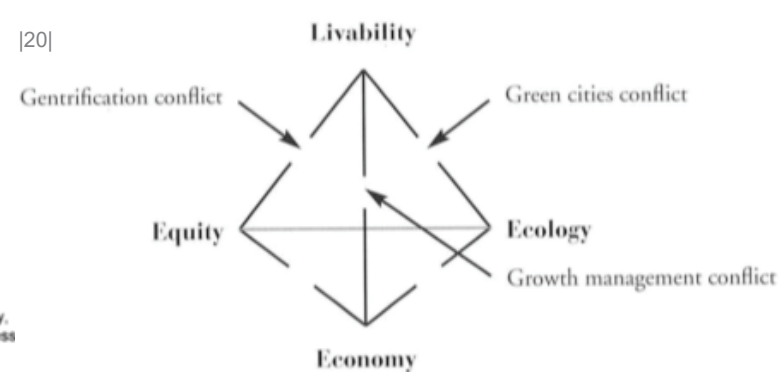


[18 – b] Perhaps, the most popular circular model

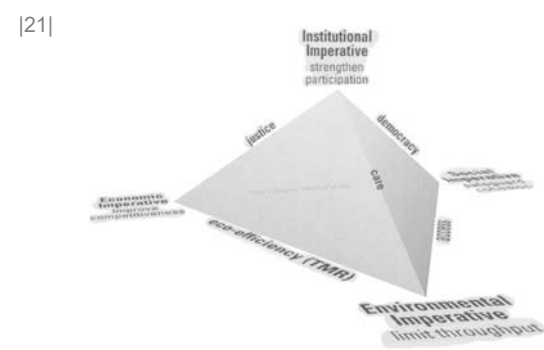
In the academic works, however, the number of sustainability dimensions and their names vary significantly. Authors suggest 3, 4, 5, 7, and even 8 dimensions (Valentin, Spangenberg 2000, 382; Bendell, Kearins 2005, 373; Spangenberg 2008, 2; Seghezze 2009, 547; Peterson 2016, 3; James 2016, 31; Poskitt et al. 2016, 11). This fact reflects the intense ongoing search within sustainability field. Despite that, its social sector remains "the weakest pillar" (another common reference), as it continuously stays the vaguest and the least researched dimension of sustainability (McKenzie 2004, 6-7; Colantonio et al. 2009, 16-19; Hollander et al. 2016, 5).



[19]



[20]



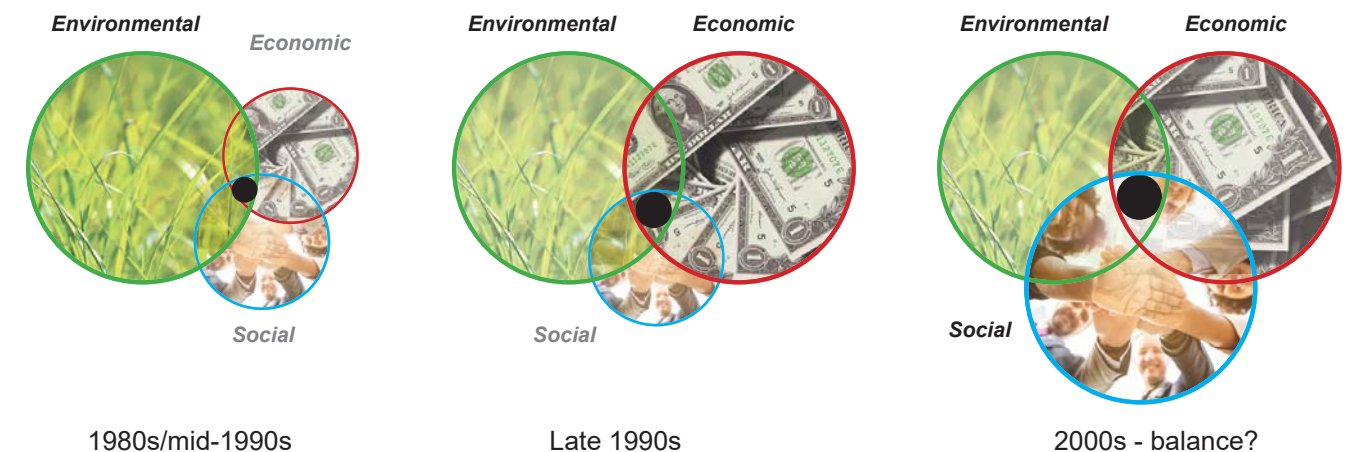
[21]



[22]

Various models found in the literature demonstrate absence of agreement on the basics of sustainability concept

Its weakness is partially explained by the historical factor. Most researchers agree that sustainability concept began with environmental discussion in 1980s³, while economic dimension received attention in the late 1990s. Apparently, social sustainability has fully occupied the agenda only since 2000s, although some work on it started in 1990s (Colantonio et al. 2009, 8-9; Dempsey et al. 2011, 289). This gradual development is very well illustrated in the graph by T. Marghescu (Marghescu 2005). Obviously, due to the shortest development span, social sustainability received least attention and is only now entering its active phase of research.



[23] Gradual development of sustainability ideas. Based on (Marghescu 2005).

Although I agree with the main idea of the graph, I believe the balance is yet to be achieved, even now, in late 2010s

Another partial explanation lies in a number of characteristic features that slow down the progress within social sustainability dimension. They are: vague borders of the study field, absence of a universal definition (Colantonio et al. 2009, 16-19; McKenzie 2004, 12), immature assessment methods (Woodcraft et al. 2011, 17), and difficulties in practical implementation. Evidently, these issues are interrelated. Vague borders with other sustainability fields prevent a clear definition; lack of clarity in definition restrains correct measuring tools; inefficient measurement, in turn, questions any practical use. Below, I look closer at the existing discussion on these problems.

1990s

The first decade of social sustainability as a recognised sustainability aspect (1993-2000) was mainly spent in the attempts to shape it into a classic conceptual framework. Researchers made a lot of effort to clarify borders of the field and produce commonly accepted definitions - like in economic and ecological sustainability concepts. (Campbell 1996; Omann, Spangenberg 2002, 3; Spangenberg 2008; UN CSD 1996) However, this approach did not bring desirable results and the reason for that lies in the very name of the concept.

The word 'social' explains all. Broadly used worldwide, it acquires numerous shades of meaning, depending on the place and the situation. For instance, there is a significant difference between connotations of 'social workers' and 'social-ists', 'social' media and 'social' security etc. Consequently, the term 'social sustainability' inevitably absorbs them, so that its meaning becomes contextual too. As a result, it has a list of definitions, none of which can be called universal.

Apparently, the same paradox affects field's boundaries. Due to its anthropocentric nature, the term 'social' penetrates almost any aspect of human activity today. Social-related policies represent human rights, thus follow

3 However, some researchers refer to 1960s as the time when the overall sustainability concept was born.(e.g. McKenzie 2004, 1)

people in business and leisure, let alone health care or housing. That blurs the borders of social sustainability as a whole unit and complicates direct studies.

Overall, the main outcome, brought by the first decade of scientific research, was a celebrated notion that social sustainability did not fit some classic research rules. It avoids universal definitions and has no clear borders. On the one hand, it is significantly underresearched as a solid concept; on the other hand, it is widely spread as an idea among numerous concepts in different fields.

2000s

The next decade (2000-2010) brought a new approach. Instead of building a solid theoretical frame for social sustainability, researchers concentrated on studying what was already in their hands. That would improve methodology, eventually reveal some characteristic features within the concept, and possibly help establish its borders. This practical approach naturally received a significant impulse in times of financial crisis, whose social consequences are still perceptible.

Thus, empirical studies stepped forward; researchers concentrated on objectives, criteria, the optimal number and quality of indicators (Valentin, Spangenberg 2000; Omann, Spangenberg 2002; Noll 2002). Some exemplary questions under discussion were “(1) *which interests have to be involved into developing indicators?* (2) *How broad a participation can be managed?* (3) *Which indicators are good and which are bad ones?* (4) *How should a set of sustainability indicators be used in decision making?*” (Valentin, Spangenberg 2000, 382) Studies concerned both potential use of existing indicators (of various nature – e.g. from the borders with economic and ecological sustainability or from existing social studies (Noll 2002)), as well as suggestions for new indicators indigenous to social sustainability toolkit (Omann, Spangenberg 2002; Spangenberg 2008, 10).

The task turned to be rather challenging. Although measurements related to social sustainability exist in other fields (e.g. serving concepts of social justice, social capital, well-being, quality of life and alike), they take very specific forms and do not serve well for building an independent social sustainability framework. The data from social studies was sporadic and either lacking reliability or requiring too much effort for its correct interpretation (Spangenberg 2008, 19). This new obstacle raised the general discussion about institutional aspect, political will, and administrative tools required for appropriate data collection and unobstructed access to it (Bogdana 2012).

2010s

Today, in 2010s, the practical approach continues. Unable to embrace the whole concept, researchers are “*focussing their analytic capacities on small-scale issues accessible to their methodology*”, as Ines Omann and Joachim H. Spangenberg foresaw in 2002 (Omann, Spangenberg 2002, 5). Social sustainability studies become more specified by subject and location, including research on connections between social sustainability and built environment.

The earliest example is urban regeneration topic, which already attracted some interest in the previous years (Colantonio et al. 2009; Chan, Lee 2008). I explain these pioneering endeavours by better possibilities for data collection. Data benchmarks built on regeneration projects allowed clear efficiency tests by comparing indicator sets ‘before’ and ‘after’. Now, urban regeneration scenarios are accompanied by studies on architectural design (Woodcraft et al. 2011; Creating Strong Communities 2012; Cox, Kersley 2014), urban planning (James 2016; Chan, Lee 2008), and even marketing for new buildings (Jensen et al. 2012).

Evidently, due to the shift towards practical implementation, case-studies now play an important role. They

accumulate practical knowledge and test the newly-developed sets of assessment tools (Creating Strong Communities 2012; Magee et al. 2012; Patel 2013; Palich, Edmonds 2013; Bacon, Caistor-Arendar 2014). Importantly, they also help building data benchmarks that can be accessed for further analysis when new assessment methods occur or when research grows in scale. Nonetheless, all that still makes little improvement per se, thus connecting these research advancements to people’s everyday life is the next step in social sustainability progress.

In fact, a few examples already demonstrate attempts to implement social sustainability tool sets into conventional development practices. Definitely, such progress takes place on a strong basis of governmental support, be it research initiation or relevant policy introduction. For instance, in 2012 the London Plan Housing Supplementary Planning Guidance acknowledged social infrastructure as a potential driver of value rather than an additional cost. Two years later, the London Borough of Sutton already became “*the first local authority in the UK to develop a social sustainability assessment tool*” (Bacon, Caistor-Arendar 2014, 4) with its following practical implementation in development.

Further integration of social sustainability into everyday development practice relies on two factors. On the one hand, conventional practices should be adjusted to embrace the new concept (Palich, Edmonds 2013, 5-8; Valdes-Vasquez, Klotz 2013). On the other hand, the rapid digitalisation characteristic for today’s urban society will inevitably bring some new solutions.

Some interesting data collection models are already in work, e.g. applications that allow collecting real-time data connected to location (Mappinessapp.com). They aim to fulfil data gaps and open wider possibilities for monitoring sustainability situation by locale. Another example is implementation of sustainability as a parameter incorporated into BIM models (Ahmad, Thaheem 2017); that would equip every architect and engineer with a real tool based on concrete set of indicators indigenous to the project region.

Future

The above practical progress correlates with the latest academic discussion on sustainability. Nowadays, it starts questioning the separation between sustainability dimensions (Peterson 2016, 3; Poskitt et al. 2016, 5) as artificial and unrealistic. More researchers argue that social, economic and environmental issues are, in fact, indivisible (Peterson 2016, 3).

Thus, it is likely that in the future, sustainability will be studied according to its synergetic nature, providing we have developed research tools powerful enough to embrace it. Then, the suggested integrated approach will focus on communities and their local complex sustainabilities, which are better described in such terms as “*well-being, livability, security, equity, and community engagement*”. (Peterson 2016, 3)



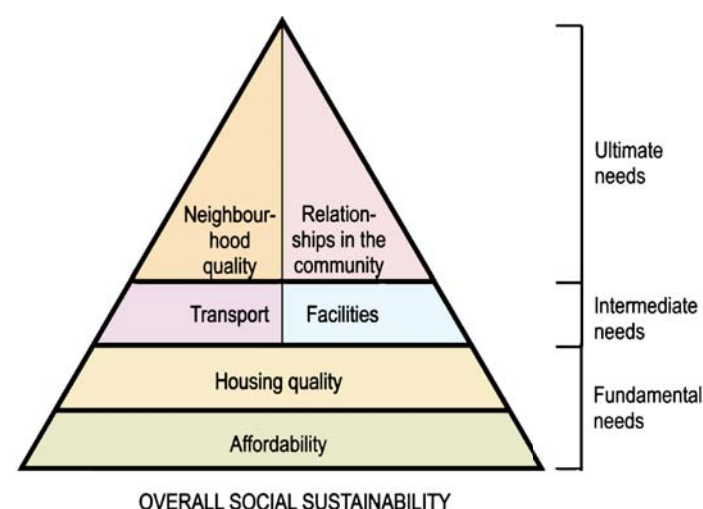
[24] The ancient metaphor of inseparable unity; these days, it might serve for sustainability

Alternative housing and its role in (social) sustainability balance of a city

Among numerous definitions of social sustainability I found one that serves my research goals best and logically completes my literature review. It reflects the complex, variable, nature of social sustainability and associates it with communities. On the one hand, such association defines the scale of the phenomenon (community as an optimal research unit on social sustainability matters); on the other hand, it brings connotations of built environment (community as a group of people unified by locality), which directly corresponds with some of the alternative housing trends studied in this thesis (e.g. co-housing or squatting communities).

“Social Sustainability is: a positive condition within communities, and a process within communities that can achieve that condition.” (McKenzie 2004, 23)

The latter “process” suggests some ongoing activity – some self-adjustment within communities that ensures their positive future⁴. If so, housing must be inevitably involved in such process, because housing satisfies one of the basic needs of contemporary human beings – a need for accommodation (see [25] below). Moreover, often the very word ‘community’ has a mental picture of a neighbourhood, whose tangible part, in fact, is based on certain housing types.



[25] Conceptual evaluation model of the social sustainability of housing based on (Ancell, Thompson-Fawcett 2008)

In other words, housing is so tightly intertwined with people's lives that any significant social change must be naturally reflected in housing trends. However, the present housing market is far from 'natural'. Very few people have freedom to build to their liking, like in the pre-industrial era. Most conventional housing options today are predefined – formed by economic situation, state policies, urbanistic philosophies and other major but rather impersonal factors. In this situation, personalisation comes mainly from developers' vision (closely linked with profitability). In my opinion, the latter is what actually forms the dweller's experience nowadays.

As a result, many in today's society adjust their initial housing needs to the housing units available on the market.

History shows that such approach works as long as the overall sustainability level remains - thanks to the synergetic nature of sustainability, a void in one of its aspects can be balanced by surplus in others. For instance, many households occupy excessive areas when economic situation and state policies are in their favour⁵. Using the earlier metaphor (see Chapter 3), if one pillar of sustainability is weakened (e.g. by housing shortage), the others can still bear the load. Hence a good wage or a generous support from the state allow people bigger and more expensive housing options, which are far easier to find.



[26] System-vs-Individuality. Individuality leaks through the standard grid of the facade

However, when other pillars fail, the situation changes. The whole system loses its stability and reshapes in its natural search for balance. Two scenarios are possible here. A natural one – when the structure is left on its own. Then, the newly formed shape might hold and stay stable for ages, only the pillars will not be straight any more. The other way requires some external measures – to restore the initial harmonious look. Some additional structure would be added to hold parts together and stabilise the system. However, both scenarios would pursue one goal – to balance forces and find some equilibrium.

This visual metaphor explains why in times of economic instability, major social changes, and consequent political frustration, we see active transformation in housing – the field that seemed so rigid before. It is a sign of natural reaction to changed forces – a search for a new equilibrium according to the first scenario.

Today's activation of alternative housing trends indicates such distortion; alternative developments work as a litmus test showing that there is some tension and imbalance (in the overall sustainability system), whose consequences reach the realm of housing. Following the metaphor, alternative housing trends are among those whimsical shapes that occur when our beautiful columns (Economic, Ecological, and Social) are shaken by the earthquake of unprecedented rapid changes. Distorted but not fallen, they form a temporarily stable structure of some weird shape. Although it looks not as harmonious, as the initial portico, it still carries the load and sometimes lasts for a relatively long time – until somebody decides to restore the initial look.

Indeed, such decision was made. Today's political agenda already



'Earthquake'

[27] External forces that shake sustainability balance

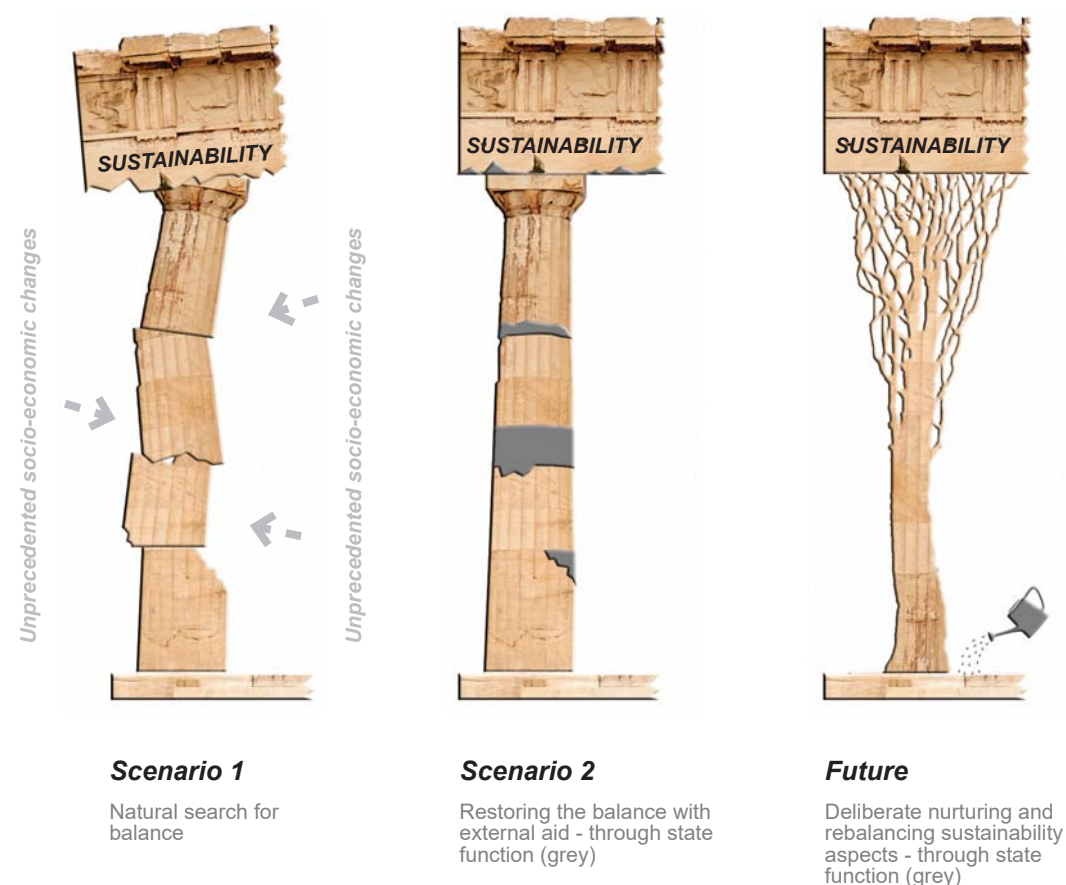
⁴ Which perfectly corresponds with the notion of cities as “complex, ever-changing systems”, whose “adaptive capacity is essential” (Nordic Declaration 2016).

⁵ For example, social security money or parents' financial support often ensures the housing autonomy of the youth; once this well is dry, young people tend to move back to parents' place. Elderly people, too, occupy more space than they need when bills are acceptable, but they rent out excessive rooms when tough times come.

recognises the housing crisis and intends to take it under control (see Chapter 1). For our falling 'Portico Sustainability' it means a shift to *Scenario 2* – installing some reinforcement. The remaining questions are 'What exactly?' and 'How?' My thesis work aims to help answering them. I suggest studying the natural behaviour of our structure first – just like restorers do before proposing any reinforcement strategy. Once the external and internal forces are identified and the trajectory towards the natural equilibrium found, it will be easier to choose the most efficient and sustainable reinforcement solution for our weakened (housing) structure.

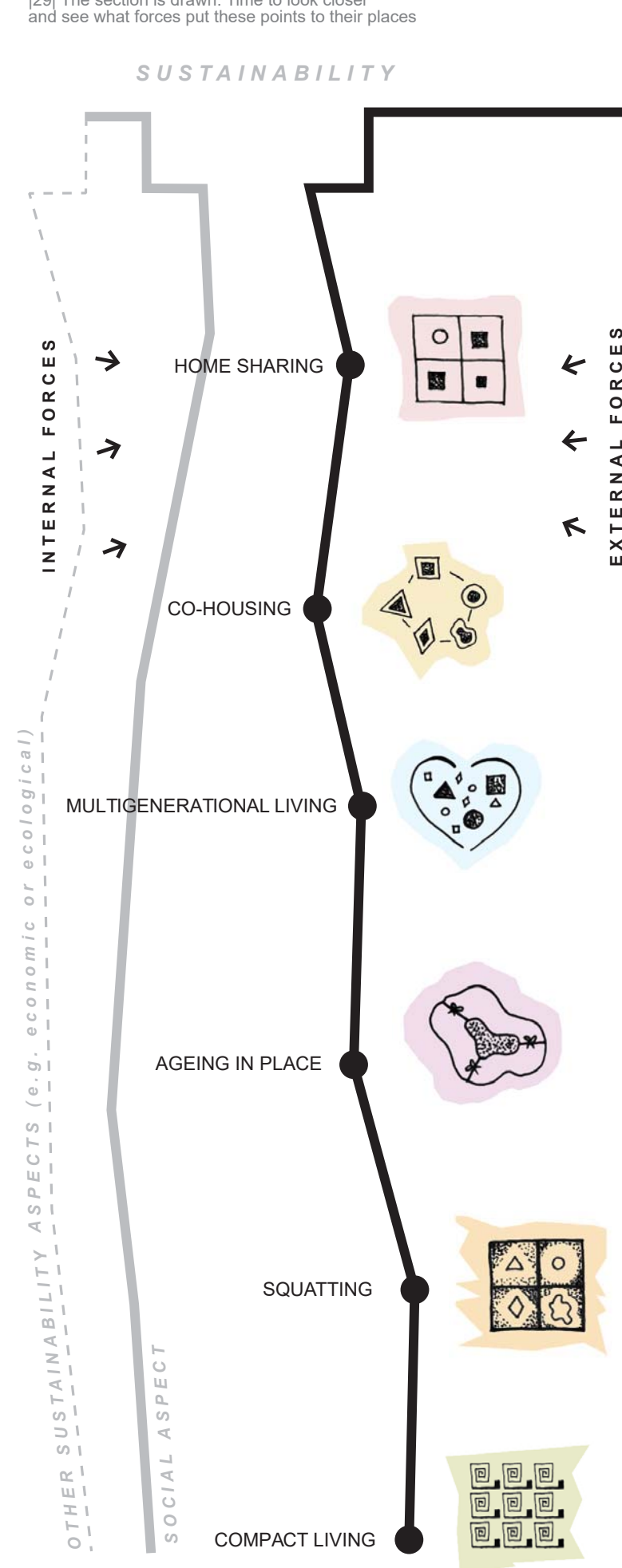
NB! Since the columns are not straight any more, they lean on each other and form that new temporarily stable structure together. Falling economy pushes ecology (e.g. lower ecological requirements in poorer countries or lessened standards in exchange for higher employment rates); likewise, it pushes the social column (e.g. causing more deaths and lower birth rates or making people search for cheaper housing options in times of economic instability) and so on. In this thesis, I focus on the connection 'housing - social sustainability', but acknowledge all other factors of influence (see Chapter 5).

The present time of change is a rare opportunity to discover how the whole system works. If now we trace the connection between causes and results, in the future, we might be able to deliberately rebalance sustainability aspects. I see my study on alternative housing trends as a step towards that. It should help architects, urban planners and policy makers better understand the genuine needs that stand behind people's housing choices. When transferred to developers as a brief, this knowledge can gradually transform conventional development and architectural practices in favour of more socially sustainable solutions.



[28] Three different ways to approach changes in sustainability

[29] The section is drawn. Time to look closer and see what forces put these points to their places



I chose 6 alternative housing trends to draw my exemplary section that goes through the destabilised parts of today's housing structure. As mentioned before (see Chapter 2), a certain set of criteria was applied to form a strong list; however, the choice remains subjective and illustrative. Moreover, at the current stage, these trends do not form any distinguishable hierarchy and occasionally overlap in their features.

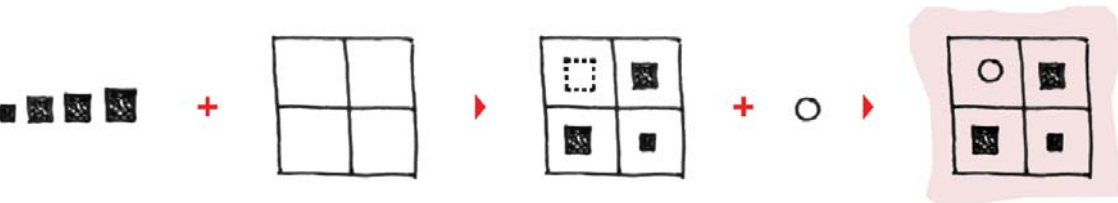
Nevertheless, when viewed together, they clearly demonstrate the internal and external forces applied to housing nowadays. That supports the idea of indirect research to be applicable in the field of social sustainability. Overlapping in this case only helps, because it emphasises popularity of some social phenomena over others, as they trigger more housing trends.

Although my main focus is on social sustainability, I find it crucial to view the chosen trends in their unbroken complexity. Thus, in this chapter I primarily identify causes and characteristic features of each trend and only later do I attempt to specify them by sustainability aspect. This way I avoid separation between sustainability aspects for as long as possible and let readers, if necessary, make their own division.

I present my list of exemplary housing trends as uniformly as possible – to show my systematic approach and to make the extracted characteristic features most comparable. For the sake of conciseness, I do not demonstrate the thorough analysis done on each reference case. Instead, I present the key facts carefully collected from different sources on each project, so that reading architects could note the main characteristics of each case in the list and see the newly-forming housing typology behind social experiments.



4.1 HOME SHARING



People of all times rented out some spare room for extra income. Alike, to save extra, they would move into rental rooms from houses or apartments. Families would accommodate their housekeepers, gardeners or babysitters in exchange for their services. Apparently, home sharing is a natural solution at times of housing shortage and income change. Below, I collect some examples of today's sharing schemes and view the reasons behind them to understand why popularity of home sharing is growing. The overview conditionally divides practices into ones where money reasons prevail and the ones where long-term relationship matters most.

4.1.1 Income-oriented model



[30]

My friend A. from London (UK) has recently renovated an old house. He left one bedroom for himself and let the rest for rent. He says it is *“just more fun to have other people around”*. In his situation it seems to be the main reason. He needs no assistance and earns enough to live without rent, but in the past years he definitely lacked some good company when living alone. Such pleasures as a nice conversation, sharing a glass of whiskey or watching a movie with others are now a part of his everyday life and A. looks much happier.

My friend B. lives in Dubai (UAE) with her son and his nanny. She, herself, rents a big flat and offers the spare bedrooms for sub-rent. She is glad to have other people around, but additional income is more important to her. Although B. is not the owner, she still makes good money on this scheme, *“especially through short-term rents on Airbnb”*, she says.

The story of my friend C., from Copenhagen (Denmark), explains why services like Airbnb are becoming more and more popular. Whenever he goes abroad, be it a business trip or a holiday, he uses this online booking platform. Obviously, for a long stay (a month or more), he could find something cheaper, but he says: *“if you compare what I pay for a similar flat here, in Copenhagen, to the Airbnb prices elsewhere, you can see that Airbnb is almost always cheaper. Plus, I don't need to wait, sign a lot of papers, give huge deposits etc.”*

Obviously, Copenhagen, like London and Dubai, is extremely expensive. For most people, a night booked via Airbnb is still more expensive than a night in their rented accommodation at home (comparable quality), but it is cheaper than hotels. Besides, all the amenities are at hand, thus keeping a special diet, having a party or washing clothes after a long journey is easier. Thanks to the direct contact with a host, people feel more home-like and secure; they benefit from additional insight and advice. For a host, too, sharing accommodation with travellers gives more than money. It brings such opportunities as language practice, cultural education, and socialising. Thus, Airbnb (and alike) combines these benefits by matching hosts with travellers and, most importantly, by securing both sides.

In Finland

Helsinki fits the trend just as fine. It is said that the metropolitan area is in shortage of affordable housing. Naturally, there are plenty of Airbnb offers for Helsinki and for its satellites. Finnish Facebook groups are as full of rent and sub-rent ads, as worldwide. And like worldwide, here people share homes for money, to get help, or to fight their loneliness.

NB! Due to the rapid increase in global mobility, I expect home sharing practices to grow accordingly. New generations are born into or grow among mixed families. They speak at least two languages from birth, watch TV programmes about every corner of our planet, chat with people from all over the world on the Internet, habitually choose to work or study abroad. Older generations, too, explore the Internet and enjoy various travelling opportunities that their parents did not have. These lifestyle changes open people's minds to the idea of home sharing as a means to know this world closer and let it into their lives. Moreover, ecological awareness and critical position towards consumeristic paradigm makes some people consciously prefer home sharing venues over hotels.

This notion of the upcoming boom in home sharing shall inspire developers, city authorities and architects to activate their search for new options. In addition to conventional adjustments of family apartments, architects can explore ideas of new developments fully or partially based on home sharing. The ongoing societal changes can lead to unprecedented fundamental consequences. XXII century family could, in fact, consist of home sharers. Communities are no longer stable settlements, as people come and go. These challenges predefine architectural brief for the 'next generation' housing. On the one hand, it should be 'socially outgoing', since constant exchange of information (including socialising) becomes a matter of survival. On the other hand, it should strictly protect personal space when needed, to save its inhabitants from emotional and informational overdose.

In that sense, home sharing is a good experimental platform – due to its temporary nature. Therefore, I presume that an empirical search for optimal scale and market ratio shall work here better than a predefined inflexible top-down framework – because of phenomenon's changeable nature and because of a few other variables involved (e.g. policies, administration or financing).

Nevertheless, the set of architectural and urban questions can include the following. How can we adjust family flats for home sharing purposes? How can we do that with studios? Is there any kind of dwellings that serves for that best (e.g. a general type or particular series of old mass development)? If so, could home sharing become its legitimate future as a part of official renovation programme, when its time comes? How can we design new apartments to serve (initial purpose), allow (potential purpose) or encourage (in between) home sharing? What solutions can we use to simultaneously satisfy owners, renters, and neighbours of home sharing flats? On a bigger scale, what is the best proportion of home sharing flats in a block? If home sharing popularity soars, could home sharing blocks become a new conventional housing type? Is there any golden ratio of home sharing area per district? If so, how universal is it? How do short- and long-term home sharing schemes influence the market and neighbourhoods? And last, but most important, how can we use home sharing to improve social sustainability by locale? Perhaps, we can learn to redirect its self-organisational and sporadic nature to city's advantage rather than to cut its reoccurring shoots? Obviously, answering all these questions is beyond my research limits. However, below I discuss some potential ideas that touch the tip of the iceberg.

4.1.1.1 A 'micro community' flat

This option aims at the landlords, who use home sharing for income. Such owners rarely live in their rental flat themselves; they have a flow of tenants, regularly advertise and maintain their properties (sometimes through a manager or an agency). For them, a special type of flats can be developed, based on a micro-hotel scheme. Such big flats would consist of several independent, self-sufficient studios of moderate size with a very efficient layout (micro-flats and student dorms taken as references). The private rooms would be connected by some common space with amenities and a lounge zone.



[31 - a/b/c] Accumulation of ideas that should ensure maximum comfort for tenants, owners and authorities (see Reference Projects)

Additional layout flexibility here can be achieved by using moving partitions or more practical prefabricated installation modules. The modules are self-sustained units that can include such additional elements as a kitchenette, wc, heaters, cloak room, storage, study zone or other small specialised spaces. They might require a connection to existing pipes, but they save spaces from full redecoration, which can be the most efficient solution for a short- term tenancy or for an urgent change. Aside this, the modules seem ideal for a quick conversion of non-housing spaces into profitable rental home sharing units.

The 'micro community' flats, if designed well for their purpose, can become more attractive for both tenants and owners, than the market options of today. For a tenant, living in the 'micro community' apartment (although with other tenants in it) can be superior compared to living in a private but small and isolated studio. Additional storage space, bigger kitchen and bathroom(s), wider corridors and a bigger living room add space and value. Moreover, they give some additional satisfaction, as people naturally associate themselves with their home.

This new rental flat type, in turn, could eventually produce a special type of rental blocks (e.g. reminding such from the past⁶), or just add more diversity within housing premises - when included into the spatial programme of a conventional block of flats.

6 Profitable houses of 19th century aka 'apartment houses', 'rooming houses', 'commercial apartment buildings'. Then, the whole house would be built by one private owner to let all its flats for rent.

REFERENCE PROJECTS:

A. 3in1 (Budapest (Hungary) by Batlab) – conversion of a big flat (110sq.m) into 3 studios unified by a common space. Individual design of studios is somewhat characteristic for micro-apartments: a lot of white colour with some bright accent, light furniture and a bed loft. (Ro 2017)



[32 - a/b/c]

B. The Hub (winning entry for Havensteder housing association competition, (Netherlands)) – a prefabricated kit that includes a kitchen and a bathroom, provides Internet access and features a sound system. The kit connects to the existing engineering systems, e.g. in an empty commercial space. It is meant for people who need a temporary living place. The project is run by major providers that install the kit in a couple of days once required. (Hess 2015)



[33 - a/b]

C. The Living Cube (by Till Könneker) – another box-shaped kit designed to help moving into an empty space. It combines most of the necessary furniture in one block, which features well-organised storage space, bed platform, and an enclosed workplace underneath. In my opinion, it can be a great solution for nomads, especially if available for rent. (Till Könneker; Treggiden 2014)



[34 - a/b]

D. Yoshino Cedar House (Yoshino (Japan); by Airbnb development) and Go Hasegawa (architecture)) – an experimental development by Airbnb. A rental house that simultaneously serves as a community centre (all the rooms except bedrooms are designed to serve both functions). The Cedar House will be rented out through Airbnb booking platform and maintained by the Yoshino community collectively. The locals will serve as tour guides for the tourists. The income from rents will be directed to community support. Importantly, this initiative is expected to attract people to the declining settlement. Otherwise, this rural community struggles to keep alive, as the young generation moves to big cities. The initiative is proposed exemplary to solve similar problems in other cities and countries. (Perry 2016; Yoshinocedarhouse.com)



[35]

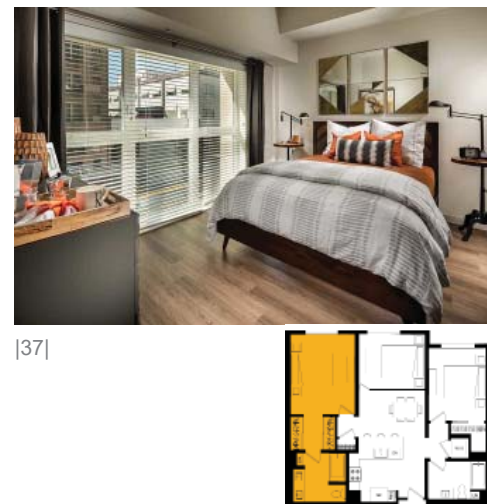
E. Niido Powered by Airbnb (Kissimmee, FL, US; by Newgard Development Group together with Airbnb; 2018) – a new block featuring 324 units designed especially for home sharing. Tenancy will not be allowed for more than 180 days. Facilities will be shared with landlords. A few innovations are introduced based on Airbnb experience. Keyless entry system shall help landlords



[36]

remotely check in/out their guests; additional services will be available via Airbnb app (e.g. fresh linens or room cleaning). An important positive impact of the development will be legitimate tenancy. The developer hopes to expand to other states. (Price 2016; Bosa, Kolodny 2017)

F. HomeShare (USA: San Francisco, Silicon Valley, New York City, Seattle, Los Angeles) – a chain that offers affordable rented rooms in its centrally located developments within the most expensive areas of USA. 3 rooms per flat, furnished and well-equipped, no need to look for roommates yourself. There are 3 categories of rooms – Converted (minimum space and privacy), Private (more isolated), and Master (maximum privacy, its own bathroom and wardrobe). Layouts are optimised to fit more comfort in less area. Community perks include e.g. outdoor hot tub, yoga room, 24h fitness centre, bike storage, coworking lounges, rooftop facilities, pool table etc. (Homeshare.com; Brinklows 2017)



NB! The latter HomeShare is an important sign for the trend, because it shows a vector towards commercial exploitation of home sharing ideas. It indicates that the maturity of the trend reaches a qualitatively new level.

If major developers see potential in home sharing, the trend will definitely grow taking various concrete shapes on the way. For instance, this particular example combined architectural ideas of apartment hotels, compact flats and affordable housing with the ideology of home sharing. Taking into account Niido example, I would call this model one of the most probable for the nearest architectural future of the trend.

4.1.1.2 An annexe

A small rental backyard unit⁷ is an option in the city districts where private houses outnumber flats. Originally, such annexe unit would accommodate one of the elderly family members, but nowadays, it is often rented on commercial basis. These annexe units usually have a small living room with a kitchenette, bathroom, and bedroom. They gain popularity in USA, Australia, New Zealand, Canada, Norway and UK. Airbnb designers also play with the concept (Solomon 2017). It will be very interesting to follow the transformation of these traditional housing types into something more efficient when the big operator brings its knowledge and fast money into the game.

NB! It is not possible to talk about income-oriented home sharing without mentioning Airbnb's strong impact⁸ and the increasing criticism, under which the company has come in the recent years. The last wave started in March 2017 with the report *The Face of Airbnb, New York City* (Cox 2017). The paper was produced by Inside Airbnb – “an independent, mission-driven data activist project, which provides data and tools to help understand Airbnb’s impact on residential communities” (Cox 2017, 22). The project is a member of the Coalition against Illegal Hotels, which sees its mission in “fighting against the impact on housing and residential communities

from illegal hotels and platforms like Airbnb” (Cox 2017, 22).

According to Cox, Airbnb causes significant racial disparity in predominantly black neighbourhoods of NYC and presents “a *Racial Gentrification Tool*” (Cox 2017, 3). The immediate response to this accusation was given in two articles, which followed the publication and pointed at the major methodological faults in both report’s data collection and analysis (AirbnbCitizen.com 2017; Nutter 2017). The history of generated polemics is thoroughly documented on the Inside Airbnb’s web page (Cox 2018), together with lists like ‘Airbnb Defenders, or Paid Spokespeople?’ and other investigations.

This discussion reached its new peak in January 2018, when McGill University published another report targeted at Airbnb - *The High Cost of Short-Term Rentals in New York City* (Wachsmuth et al. 2018). This research, too was based on New York City case-study, but it blamed Airbnb not only on racialism (although fully agreeing with “Racial Gentrification Tool” status⁹), but also on increased median rent and accelerated gentrification (Wachsmuth et al. 2018, 3). Notably, the report was commissioned by the Hotel Trades Council (AFL-CIO) and co-sponsored “by a number of New York City community, housing and tenant advocacy organizations” (Wachsmuth et al. 2018, 48).

The overall situation looks more like a war over the market¹⁰ than an unbiased urbanistic investigation, since both reports are precisely targeted at Airbnb business¹¹ and lack data on other income-oriented home sharing. However, I see in this fact a proof that income-oriented home sharing (presented by Airbnb in this case) has a large demand and shows serious competition to conventional (apartment) hotels. The tension is growing and much is at stake, including the future of the whole trend. At this stage, much depends on political will.

The latter seems to follow its well-known path. “*New York’s City Council is plotting a crackdown on Airbnb*” following San Francisco and Los Angeles (Goldenberg 2018). There, ‘traditional’ regulatory measures were already introduced¹², which significantly cut the number of listings on the site (Said 2018). In my opinion, the restrictive character of measures does not demonstrate flexibility required by the situation. It shows that the unprecedented global socio-economic changes were not taken into account (drastic increase in tourism and work mobility, e.g.).

What about all those listings that disappear from the site over night? They constitute up to 50% of the total (Said 2018), but the new measures make them ‘invisible’ for the city again. Obviously, within time, landlords will find another way to advertise their properties. Especially, if they are used to renting out 2 and more units. Although such landlords constitute “only 12% of hosts in NYC”, they generate 28% of revenue (Wachsmuth et al. 2018, 2) and I doubt that they will leave their highly-profitable business when demand is on the rise.

Why not to let them rent on more flexible conditions, with some benefit to the city? Why not to introduce

⁹ The term was directly cited in the new report (Wachsmuth et al. 2018, 3).

¹⁰ Citylab called it “horror stories” (Boone 2018), Curbed NY at first accurately highlighted opposite opinions and later placed its own article (Plitt 2018) about disputed data (Long 2018), while Politico in its later publication openly called what was happening “a well-funded advertising and lobbying campaign by the hotel industry” (Goldenberg 2018).

¹¹ E.g. the list of research questions in the latest report consists of: “1. Where is Airbnb activity located in New York, and how is it changing? 2. Who makes money from Airbnb in New York? 3. How much housing has Airbnb removed from the market in New York? 4. Is Airbnb driving gentrification in New York?” (Wachsmuth et al. 2018, 2) Meanwhile, the first report was initially written to disprove statistics published by Airbnb and “to see who benefits economically from Airbnb, and who suffers its negative impacts like displacement and neighborhood disruption” (Cox 2017, 2).

¹² For instance, in L.A.: a maximum of 120 rental days per year; only primary residences; neither rent-stabilized nor affordable housing units (Romano 2018).

⁷ Aka Granny Unit, In-Law Unit, Secondary Suite, Granny Flat etc.

⁸ Airbnb influence on housing was recognised by IFHP (International Federation for Housing and Planning) in format of IFHP Copenhagen Lab: *The Airbnb Impact on Housing and Tourism* (IFHP Copenhagen Lab 2016).

'combo-plans' that would include short-term and long-term rents? For example, why not to allow 2 rental units, providing one of them is given for a long-term rent on city's conditions? Or why not to introduce some tax on 3rd and 4th property (meaning excess profit), which would go to the neighbourhood? Although I do not have answers to these questions myself, I believe that this issue should be studied better on the basis of impartial socio-economic research of significant scale and depth.

In my opinion, a constructive dialogue with Airbnb and other major home sharing platforms can bring much better results for cities and citizens. On the contrary, relevant legal cases and tightened restrictions will only escalate the conflict instead of helping people, who in fact, stand on both sides of this dispute. Perhaps, after a while this pendulum will find its balance and some Solomon's solution will be found¹³. Undoubtedly, expertise from urban planners and other relevant specialists would significantly accelerate the process.

4.1.2 Partnership-oriented model

Internationally

An interesting approach was found to combine those who wish to fight loneliness with those who have to cut their accommodation expenses. The charity programme called HomeShare International lets people *"share a home and their lives for their mutual benefit"* (HomeShare International). Within Europe, it operates in Austria, Belgium, the Netherlands, France, Germany, Italy, Spain, Switzerland, UK, and Ireland; outside – in Australia, New Zealand, Canada, and USA. Despite its roots in 1970s, an established net, and uprising popularity, it still has a lot of space to grow.

Originally meant to help the elderly in their daily chores, Homeshare now has a variety of participants, thanks to the flexibility of its concept. Among them: physically challenged people and those who have assistance needs, single parents with limited child care options, low-income students, and all those who are priced out of the market (e.g. graduates, nurses, police officers, teachers etc.). Here is how it works, taken directly from the Homeshare site: *"A householder, usually an older person with a spare room, offers free or low-cost accommodation to another person in exchange for an agreed level of support. The homesharer may provide: companionship; shopping; household tasks; gardening; taking the householder to medical appointments; care of pets and, increasingly, help to use the computer"* (HomeShare International).

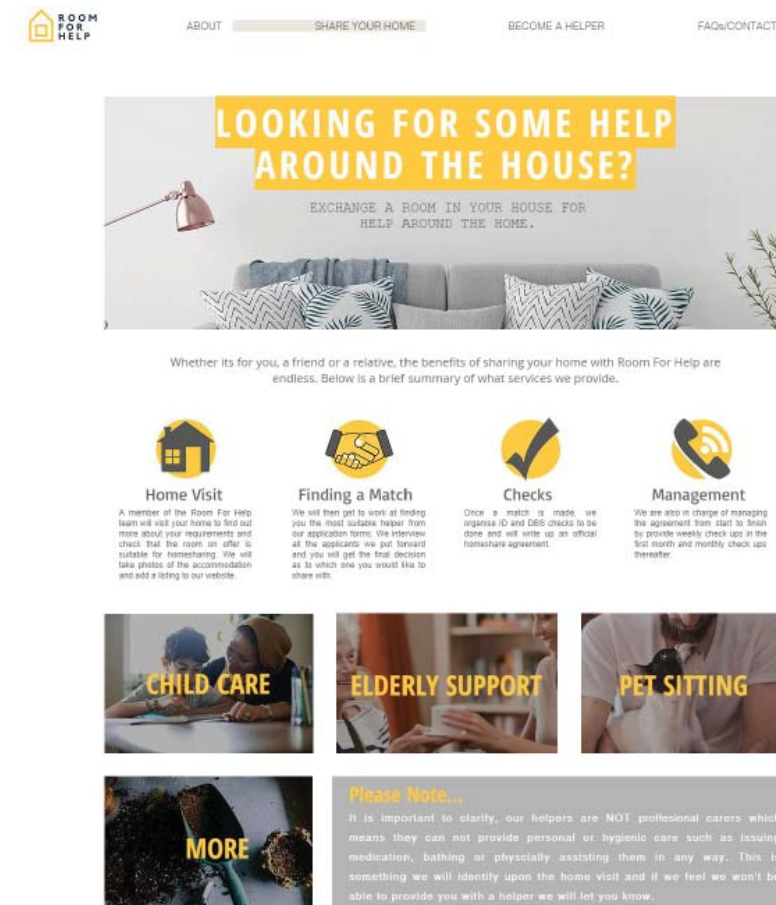
Professionals, who make 'matches' between people with different needs, make sure people 'fit'. Like in the case of most exchange platforms, the programme gives security to people, who otherwise would be very cautious about sharing their everyday life with a stranger. This programme, nevertheless, provides an unusual amount of additional support for its participants: finds matches, helps with establishing chores, prices, and many other nuances. Importantly, it also provides professional help in case of conflicts. That is why, despite some occasional difficulties, the scheme succeeds (Murphy 2012).

NB! I presume, within time this scheme could develop into state-level programmes, where medical students or trainee social workers would have an advantage as potential sharers. That can happen if cities step aside from the conventional practices and start searching for housing solutions creatively, beyond developers' initiatives. If the programme receives state support through relevant policies, it might even change the market. For example, big flats could become more interesting to buy, if an additional room comes at a lower price, providing it is

¹³ Finnish state-run gambling monopoly could be an interesting reference here. Finland managed to direct significant revenue that comes from its legalised gambling to health and welfare, including treatment for gambling-addicted people.

rented out to programme participants for some years after purchase (with lower rent or in exchange for some work hours). Later on, this additional room could be either used by family itself (e.g. nursery) or be rented out at full rent, as the owners would be used to landlord's role by the time. Importantly, this model would help cities find accommodation resources without building plantations of studios.

Although HomeShare International is a bright example of home sharing focused on social aspect, it is not the only one. Below I collect a list of initiatives based on similar ideas. The variety within this field demonstrates that this type of initiatives is on demand. I presume that, with a little help on state's side, these programmes could become a good addition to conventional social housing and elderly care programmes.



[38] An exemplary page of a partnership-oriented home sharing programme (Room for Help)

In my opinion, the future of partnership-oriented home sharing is concerned with state- supported social services based on existing housing stock. The main missing part here is incentive mechanisms and a dense policy framework that would ensure security through a recognised legal status backed by well-developed administrative and juridical procedures.

In Finland

In today's Finland, such practices are at their beginning, but already show a notable potential. The most known Finnish initiative is Oman Muotoinen Koti – 'A Home That Fits'. It is a collaboration that *"is looking for innovative ways to solve the homelessness of under-25 year olds"*. Since 2014, several projects were launched using *"design and cocreation with the young"* as their main tools. The search for solutions is truly creative and its results demonstrate a mix of home sharing, co-housing, and squatting ideas; that is why projects by Oman Muotoinen Koti can be found among different categories. (Oman Muotoinen Koti)

REFERENCE PROJECTS:

G. HomeShare International – see description above.
(HomeShare International).

H. Inter-Generations (Lyon, France) and similar – home sharing where the main idea is to create inter-generational matches. On the one hand, this kind of practices belongs to home sharing; on the other hand, they aim to create multigenerational units and diversify neighbourhoods, hence I put some initiatives by Inter-Generations into Multigenerational co-housing section as well. (Esdes InterGénération)

I. Senior Homeshares (Boulder, CO, USA) – only for older adults – matches “*elders who have more home than they need or can afford with elders on a fixed income who are looking for safe, affordable housing*”. (Senior Homeshares)

J. Home Exchange – a vocational exchange of homes familiar from The Holiday (2006) with Cameron Diaz and Kate Winslet. People swap homes and stay at each other’s place for free during an agreed period of time. Although it obviously involves economic interest, the main reason here is experience at a new location; exchanges are not regular and a fair part of experience concerns communication between the two parties. (Homeexchange.com)

K. Combining Work and Housing at Kannelmäki (2017, by Oman Muotinen Koti) – 4 young people received accommodation (two apartments) and 250 Euros per month in exchange for app. 20h of work as ‘good neighbours’. 4 work places were chosen for them at the beginning: a senior house, a nursing home, a local café, and their own house. (Oman Muotinen Koti; Sahlman 2015)

L. Homma Himaan (2018, inspired by Oman Muotinen Koti) – a home sharing site aiming to accommodate young people by (partially) replacing rental money with work hours. The team was chosen among 15 finalists in Vuosisadan rakentajat competition. The goal is “*to support the young to get independent and bounce further in their lives*” and simultaneously “*create new kind of communities*” (HommaHimaan). (HommaHimaan; Oman Muotinen Koti)

M. Vartiosaari Seasonal Living (2016, by Oman Muotinen Koti) - a small group of young people received their summer accommodation in an activity centre on Vartiosaari island. In return, they do some renovation work in the centre. Additional benefit is given in study credits for learning new things through working. (Oman Muotinen Koti)



[39]



[40]



[41]



[42]



[43]



[44 - a/b]



[45]

HOME SHARING – SUMMARY

WHAT PEOPLE WANT: have shelter (a bed in a shared room as the minimal unit of housing); save/earn money (on rent, on bills, on services); fight loneliness; have assistance; feel secure; feel supported; have regulated privacy (encounters with ability to withdraw any time); easy tenancy (fast agreement, fast termination, fraud risks minimised, conflict regulation); have fully furnished, equipped and sometimes serviced accommodation cheaper than hotels.

WHAT CAUSES THIS TREND: decrease in income level (economic crisis and high unemployment rates, especially among young generations); lack of affordable housing on the market in general; property prices skyrocketing in some areas (mainly capitals and alike); later family formation (and need for a room instead of a flat e.g.); ageing population (that needs care and has excessive space); expensive professional care (be it a babysitter or a geriatric nurse); globalisation of job market and consequent labour mobility (that causes a need for a temporary furnished dwelling with no complicated formalities); immigration crisis; anonymity within conventional housing blocks; lack of social housing; lack of elderly homes; gentrification of city centres.

(POTENTIAL) FLAWS: shady schemes in home sharing (loss of money by tenants, uncovered damage to dwellings, danger of harassment for both parties); the existing state registration schemes lack efficiency compared to online platforms (no useful services or insurance in return for taxes); most booking platforms are still under-developed; some areas experience gentrification due to tourists invasion; locals often suffer when neighbouring flats are rented out to tourists on a short-term basis.

WHAT IS MISSING: overall, home sharing has to be recognised as a major trend by authorities. New types of dwellings should be developed consciously (the existing ones - modified) and tested by main market players first (e.g. on Airbnb experimental developments); then, if the test is positive and the offer matches demand, relevant policies should be introduced to support and regulate such new form of housing. For instance, the abovementioned policy about renting rooms to certain programme members with consequent financial benefit or blending Internet platforms with official state tracking systems to simplify paper work etc.

WHAT ARCHITECTS CAN:

1. Suggest affordable and simple hence relatively universal solutions for adjustment. Such projects as The Hub and The Living Cube already demonstrate how empty non-residential spaces can be sustainably reused by the city to compensate housing shortage. Their temporary character makes them especially beneficial: they could serve equally well for shelter facilities or (emergency) youth housing. At the same time, they can work as a measure for gradual redevelopment – make unused spaces occupied and give developers time to advertise future renovation projects, collect money through rents, test expediency of the new concept and introduce neighbours to the idea of an upcoming residential block. Thus, it has a double social sustainability effect – sustainable provision of shelter (when needed, for as long as needed, with minimum additional resources), plus a lessened shock on the neighbourhood due to the ‘gradual development tactic’.

3in1 project works in a similar way for existing housing stock and could be recommended for areas prone to home sharing (e.g. tourist sights and university areas). It successfully combines socialising opportunities (common hall, which provokes social interaction) with privacy (fully-equipped independent units). Notably,

facilities here form blocks that resemble the above two projects. Further design experiments should test the compatibility of the two ideas, i.e. standard removable blocks that include a bathroom and a kitchenette and could be assembled or disassembled in any room of a shared flat during its renovation. Such combination would make conventional conversion faster, easier, and possibly temporary – a universal design solution that shall work for ‘micro community’ flats, annexes or newly built hotel-like sharing blocks. In terms of social sustainability, it may put home sharing on a qualitatively new level, as specialised ‘micro community’ flats could appear and disappear following demand. It would let landlords enjoy their benefits (whether it is money, sporadic socialising or a lasting partnership). At the same time, when home sharing purpose is no longer actual, such flats could be easily converted back into a big family apartment or divided into studios by owners themselves.

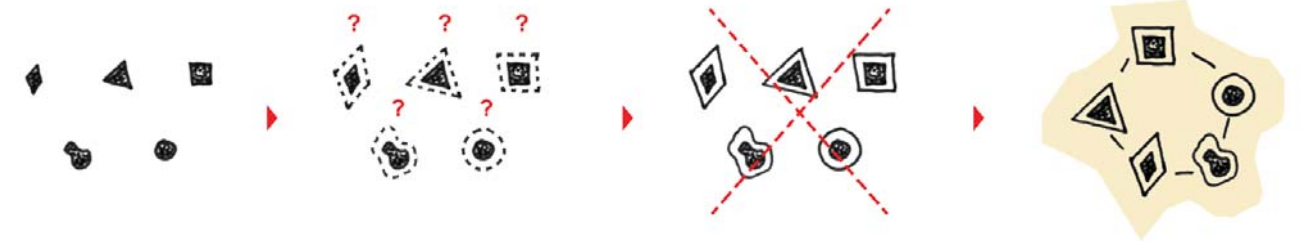
2. Design new types (of flats/ blocks of flats/ houses etc.) that fit and enhance the function of home sharing. Such designs shall test different combinations of purposes; e.g. apprenticeship- babysitting- or nursing-oriented home sharing. The latter could help ageing-in-place baby-boomers and low-income students (possibly of medical faculties) today, but they will raise questions of adaptability when demographic situation changes and elderly care does not challenge social sustainability any more. Other design ideas on home sharing flats would also benefit from ‘plan B’ – a programme of alternative use. It could be a simple transformation, like changing the number of rooms by movable partitions (which also can include e.g. built-in furniture elements or electrical appliances). It can as well be a more complex transformation plan that includes neighbouring apartments or common space between them, although such measures seem more complicated and less realistic from organisational and law perspective.

Such projects as Yoshino Cedar House, Niido Powered by Airbnb, and HomeShare approach future adaptability questions differently. Yoshino Cedar House bases its design on a combination of functions – home sharing for tourists and a community centre. That ensures economic stability of the scheme (marketing strategy based on genuine cultural experiences for visitors, predetermined connection with the biggest booking platform, potential possibility to rent out for other purposes in low season), and its positive social impact (saving the declining settlement, providing work places for locals as tour guides, directing rental incomes to the community, promoting local culture worldwide and setting example to similar problematic areas internationally. Meanwhile, Niido and HomeShare present the first experiments on home sharing blocks, with and without owner’s presence respectively. Time will show which scheme and which design concept works best for home sharing. As well, it should reveal best flexibility schemes. Unlike Cedar House, which can function as a community centre and alike, these two developments could fit as apartment hotels or residential/mixed blocks. Again, much will rely on today’s design solutions versus tomorrow’s technology and standards.

3. Research the phenomenon of home sharing and its impact on urban sustainability. More theoretical investigation and practical experiments (in association with developers and cities) would identify potential, limits and flaws of evolving urban home sharing types to avoid major mistakes in the future. Architects and urban planners should provide unbiased research and lead the discussion that otherwise will be directed by such interested parties as e.g. the hotel industry. Reliable data and disinterested expertise by architectural society shall help city authorities establish socially sustainable course and eventually convert home sharing into a tool able to improve social sustainability situation by locale.

4.2 CO-HOUSING

(aka Intentional Communities, Collaborative Housing etc.)



4.2.1 Unspecified co-housing

One of the most complete definitions of co-housing I found is by Beth Baker: “an intentional community, architecturally designed to include a private apartment or house for each resident or family, with shared common spaces to accommodate group meals and gatherings. Usually governed by consensus. Most units are purchased, but some co-housing communities include rental units” (Baker 2014, 219).

UK Cohousing suggests a shorter one: “intentional communities, created and run by their residents. Each household has a self-contained, private home as well as shared community space” (UK Cohousing Network).

Apparently, my study on co-housing projects proved that the shorter, the better, since a long all-inclusive formula paradoxically leaves some cases outside its scope. Following the diversity of its names worldwide, the concept of co-housing accumulates different schemes of co-living based on various ideological backgrounds, ownership, funding and legislation schemes or dwelling types. Thus, mechanisms, through which co-housing concept is implemented, change from country to country (Vestbro, Horelli 2012; Krokfors 2012, 309-310).

Nevertheless, in its core, a co-housing community has people who live together for the sake of interaction (Krokfors 2012). They value each other’s company and respect privacy. The rest usually depends on those people’s motives and local circumstances. Most often, future cohabitants become friends long before their dwellings are ready, as they do a lot of work together: find a plot, create an architectural programme, check layouts, negotiate with authorities, establish community rules, divide responsibilities etc. This time- and energy-consuming process already unifies neighbours-to-be and creates attachment to their future home.

Architecturally, the most traditional model is based on village-like rural or suburban neighbourhoods (to save money on land cost) with individual houses organised around the communal building. The latter is used on daily basis as an extension of individual houses and usually includes big living room, communal kitchen with a dining room, daycare room, various workshops, room for guests, and laundry. Among additional facilities could be: teen room, office, ballroom, crafts room, gym etc.) (Krokfors 2012, 309-310).

Despite its rural nature, co-housing model has been successfully adjusted to the urban reality of today. In a city, it often shrinks to a single house or even a big flat and occasionally presents a conversion project (again, to make it cheaper). In bigger projects, individual dwellings are piled into a block of flats, with common space on the first or/and the last floor. In any case, residents still control the design and building process, the financial flows and the community life.

My research on co-housing brought a few challenges. First of all, the term itself is not well-established. I use the word ‘co-housing’ here as the most common among English-speaking sources. Even there, ‘Intentional

communities', 'Community-oriented housing' and 'Collaborative housing' replace 'Co-housing' very often. The spectrum of international names is much wider (Fromm 2012, 364; Levinson 2003, 195). As a result, there is no commonly used all-inclusive classification that would unite all known co-housing branches into one tree.

As mentioned earlier (see Chapter 2), creating such classification with unquestionable vocabulary is not the purpose of my current study. Although I do use some grouping principles to help the reader, I do not insist on them. The terms, too, are chosen purely for the sake of reader's recognition. Due to my research goals, it is much more important to study the existing phenomena and to extract their characteristic features than to build a full family tree. In addition to Unspecified co-housing I view the following units of Specified co-housing: Senior co-housing, Multigenerational communities, Niche communities, and Ecovillages.

The above list visibly lacks cohesion, as the names reflect different types of characteristics (age, status, philosophy of inhabitants), which does not help the grouping. Yet, the projects themselves are very close. I reckon that when the question of well-grounded classification arises, another grouping principle should be found. For example, I appreciate the participant-based approach proposed by Salla Korpela in her article 'Casa Malta: A Case Study of a Contemporary Co-Housing Project in Helsinki'. She divides all co-housing community members into three groups, based on their expectations for the project: '*Building together*', '*Sharing everyday life*', and '*Serving a common ideal*' (Korpela 2012, 336-337).

My literature overview and reference cases prove this division just, useful, and rather universal. Although mixed and changeable at times, intentions of co-housing members serve well to specify projects, when neither economic nor organisational scheme is indicative. The latter fact per se already points at the social nature of the co-housing phenomenon.

Internationally

Co-housing has already more than 40 years of history (Vestbro, Horelli 2012) and its popularity is growing. Among European countries, Denmark, Sweden, the Netherlands, and Germany are commonly named as the leaders in co-housing movement. There, this initially bottom-up trend already meets top-down initiatives receiving recognition and support from the states. The longest history of co-housing development in these countries and high level of initiatives in population explain that progress. Nonetheless, in other parts of the world, co-housing also gains momentum (e.g. USA, Canada, Australia) and some interesting projects arise. Consequently, I include them in this overview, despite my main interest in European countries as the closest reference for Finnish housing.

Denmark and Sweden are most often named the pioneers in co-housing. The first co-housing project ('bofællesskab') was built in 1972 in Denmark, close to Copenhagen. Today, already 50 000 Danes live in co-housing, but it is still only about 1% of the total population. (UK Cohousing Network) In its architectural form, Danish co-housing relies on horizontal model and features mostly low-rise dwellings. Swedish co-housing ('kollektivhus') significantly differs from it. It features high- and mid-rise blocks of flats with vertical space division. Although the roots of Swedish co-housing go back to 1930s, the first modern unit appeared only in 1979, in Gothenburg. Nowadays, there are more than 40 functioning projects. Interestingly, most co-housing projects in Sweden are state-owned; the privately owned ones only start to appear, which is very unusual worldwide. (Vestbro 2014)

Nowadays, the Netherlands and Germany seem to be very active in co-housing, due to the relevant policies introduced in these countries. In the Netherlands, since the beginning of co-housing movement in mid-70s, more than 100 'Centraal Wonen' (unspecified co-housing) and some 300 'Groepswonen van Ouderen' (senior co-housing) projects were built. Germany also started in 1970s, but the major growth in co-housing began only in 2000. It was triggered by the 'baugruppen' policy, which let initiative groups access land. These days, about 500

co-housing projects exist in Germany and Berlin is claimed a worldwide centre for co-housing with more than 150 projects in its region. (UK Cohousing Network; Ache, Fedrowitz 2012)

Within EU, co-housing is on the rise in France, Spain, Austria, Belgium, Italy, and Czech Republic. Outside, it attracts more and more attention in US, Canada, Australia, New Zealand, and Japan.

In Finland

According to D. Levinson, Finnish co-housing started in 1972 in Kirkkonummi, near Helsinki. He also mentions projects in Jyväskylä, Tampere, Oulu and Helsinki realised in 1980s (Levinson 2003, 750). Yet, the trend did not reach any significant scale. The interest revived in 2000s, but the real popularity came in 2010s, together with authorities' will to diversify Finnish housing market. Although the latter is still heavily standardised and run by major developers, there is a notable shift towards legislative and financial measures in support of co-housing. Design and production model search is just as active. (Krokfors 2012, 313) A number of projects collected below show the main features and the direction of the trend in Finland.

REFERENCE PROJECTS:

N. Malta (2014; Helsinki; by ARK-HOUSE Arkkitechdit and residents) – an urban block of flats. Gross area of 7900sq.m includes: 61 individually designed units, 550sq.m of shared space (day care, communal kitchen, dining hall, lounge and library, hobby room, club room, diverse sauna compartment, winter garden, outdoor recreation store, stroller store, laundry), an underground car park for 24 cars, and 2 commercial spaces (app. 100sq.m). (Korpela 2012; ARK 2014a)



[46 - a/b]

O. Annikki (2012; Tampere; by Arkkitehtitoimisto HANNALYYTINEN and residents) – a renovation of a 2-storey enclosed wooden residential block originally built in 1909. Gross area of 2680sq.m includes: 23 individually designed units, a guest room, shared space (club rooms, sauna, wood shop, laundry, store rooms, bicycle store), and commercial space. (ARK 2014b)



[47]

P. Communal living in Kannelmäki (2015 - present) – an experiment by Oman Muotoinen Koti together with Helsingin Kaupungin Asunnot Oy. Some unused property in Kannelmäki accommodated 9 young people (18-25 year old). Its 11 rooms, shared kitchen and bathrooms coupled with spacious common areas gave the new dwellers freedom to plan their communal living, which introduces a new mode of rental accommodation in Helsinki. (Oman Muotoinen Koti; Sahlman 2015)



[48]

Q. Svartså Skola (ongoing; Porvoo; by VISIOMO Oy and AIBEO Architecture) – a conversion of 2 old wooden school buildings into a co-housing project. These 2 main buildings together include 12 apartments, 2 of them convenient for physically challenged people. At the moment (2017), only Building 1 has a settled layout with 6 apartments (63-110sq.m each, divided into 2-3 levels) and common area of 135sq.m (a communal industrial kitchen and a communal large living room). The 2 auxiliary buildings include: ball room, winter garden, sauna, workshop room, and garage. The court features a tennis court and a parking area. (Svartså skola)



[49]

NB! Although Svartså Skola claims itself a co-housing project, I have some doubts in its nature regarding the ongoing process. The official site already features plans of apartments, as if they were ready-made (Svartså skola). Of course, “flexibility” of plans is mentioned, as well as “co-design”, but the whole marketing strategy reminds a conventional housing development. As one of the site visitors commented, “the process matters”¹⁴. In other words, a true co-housing project begins when residents-to-be form their initiative group and start working together, otherwise it is a dorm on sale.

Nevertheless, some big Finnish developers, such as Setlementiasunnot, successfully ride on the coattails of the trend. They intentionally unify their tenants by seeding and nurturing the sense of community. They still offer ready-made flats, either for rent or for purchase, but the communal spaces in their blocks are significantly diversified (compared to common housing) and a specially arranged community coordinator makes sure they are used regularly by all inhabitants. Moreover, Setlementiasunnot allows exchanging apartments within developers’ properties (if the tenants pair themselves)¹⁵. Some of the blocks have inner yards, most promote eco-friendly solutions and active lifestyle. (Setlementiasunnot.fi)

On the one hand, this practice shows a ‘negative’ or ‘reversed’ co-housing, because walls here appear before community sense. On the other hand, such initiatives illustrate direct impact of uprising co-housing trend on conventional development practice. They change the traditional Finnish block of flats, but they do not change the market rules, as a true co-housing does. Based on the established design and development practice, they tend to substitute for the real, bottom-up, co-housing. Taking into account the power balance, the difficulties of co-housing process, the local housing tradition, and the priorities of general public, this scenario might well become major in Finland keeping bottom-up co-housing on the margin.

In summary, the above examples show that most Finnish co-housing projects are, firstly, urban and, secondly, take shape of a compact block-of-flats rather than a village-like neighbourhood. These two points put them close to Swedish co-housing model. Their urban nature, in my opinion, stems from two facts. Firstly, people in cities meet higher price levels and are naturally forced to look for alternative housing options. Secondly, they are usually more active, better-educated, more aware of the global trends; therefore, they are open to new opportunities - just like it happened at the first Swedish projects of a kind (Vestbro, Horelli 2012).

¹⁴ The official co-housing portal of Denmark agrees stating that “The key to the good community is to let residents build it” [“Nøglen til det gode fællesskab er at lade beboerne om at skabe det”] (Johansen 2018).

¹⁵ Just like HomeShare in US (see 4.1.1.1, ex.F), although the latter preferred to exploit home sharing connotations.

However, the vertical design scheme of an urban block “cannot achieve the intense and life-filled atmosphere of communities based on horizontal circulation” (Helamaa 2014). Thus, Finnish co-housing urban blocks rely on privacy and that might be exactly what Finns need. Some authors explain it by very independent mentality and Finnish tradition of separate living, while others suggest that it can be simply a habit (Pirinen 2014). Definitely, it is hard to wish close communality that you have never known; there should be generations successfully raised in co-housing dwellings to make it a common option.

4.2.2 Specified co-housing

Into this conventional category I put projects where community chooses new members based on certain criteria. The latter can concern age, lifestyle, sexual orientation, education, hobbies etc.

4.2.2.1 Senior co-housing

In senior co-housing dwellings are offered only to those households where one or all members fit the age limit established by the community. All other features remain identical to unspecified co-housing (see above). Since this category is rather obvious, I directly proceed to Finnish references and skip international examples, as they make no significant difference.

REFERENCE PROJECTS:

R. Loppukiri Housing Community (Helsinki; 2006; by Aktiiviset Seniorit, KIRSTI SIVÉN, ASKO TAKALA Arkkitehdit Oy and residents) – “the first social experiment on the seniors in Finland” – a 7-storey building that includes: 58 flats (36-80sq.m each), guest room, and app. 450sq.m of diverse common space split between 1st and 7th floors: shared kitchen with a dining room and a terrace, office, TV lounge, library, 2 saunas, living room with a fireplace used for many different activities, gym, rooftop terrace, laundry, shelter for bikes, residents’ storeroom. Age limit: at least 48 years old for at least 1 person in a flat. (Loppukiriseniorit.blogspot.com)



[50]

S. Ilona 1, 2, 3 (Jyväskylä; 2014 – ongoing; by Jaso and residents) – several buildings designed on similar principles across Jyväskylä region. Huhtasuon Ilona (Kangasvuorentie 22; 2015): built in 2 stages and overall includes 80 apartments (40-70.5sq.m) spread on 5 floors; minimal age for residents is 60 years old. Palokan Ilona (Lukutie 1; 2017): 52 apartments (37-68 sq.m) on 6 floors; minimal age for residents is 55 years old.



[51 - a]

Kuokkalan Ilona (Sulkulantie 34-36): 54 apartments (42-66 sq.m) on 5 floors; minimal age for residents is 55 years old; 2016). Ilona developments were founded by JASO association (a non-profit organisation that aims to provide the elderly with convenient housing); residents participate in designing shared premises, planning and organising activities. Participation in activities is voluntary; help by part-time service coordinator is offered. (Varttuneiden asumisoikeusyhdistys Jaso)



[51 - b]

T. Kotisatama (Helsinki; 2015; by Aktiiviset Seniorit, KIRSTI SIVÉN, ASKO TAKALA Arkkitehdit Oy and Residents) – a housing community “for midlife and elderly people” (Kotisatama: Housing Community 2016). The building of 9 floors includes 63 flats (38.5-77.5sq.m) and about 500 sq. m of common area. Three floors are chosen for extensive common use: ground floor (community kitchen, dining room, hobby room and two shelters for bikes), 2nd floor (library, office, laundry, guest room) and 9th floors (a couple of saunas, a gym connected to a big living room with a fireplace used for various purposes, and terraces for leisure and small gatherings). Minimal age for residents is 48 years old for at least one person per flat. The housing organisation is governed by a management board with some assistance by a qualified property manager. The flats may be owner occupied or rented out. (Weaver 2016; Kotisatama: Housing Community 2016)



[52 - a/b/c]

NB! The examples show that Aktiiviset Seniorit (‘the Active Seniors Association’, founded in August 2000) is a pioneer in Finnish elderly co-housing, with its successful projects Loppukiri and Kotisatama and the third development being planned (Aktiiviset Seniorit ry). Other organisations now follow into its footsteps (e.g. Jaso that launched in 2012 its Ilona series), which proves success of co-housing ideas among ageing Finns.

The logic behind such success is simple. The economic downfall of 1990s caused serious cuts on traditionally generous Finnish social security system, including elderly care. In the country, which is among world’s leaders by demographic ageing, it means a significant social change. Suddenly, care for elderly people became a challenge for their relatives. The founders of Aktiiviset Seniorit were among the latter. They faced this challenge actively and Aktiiviset Seniorit became their solution to the problem. Apparently, the idea attracted a lot of other people in a similar situation and its popularity is still growing. (Kotisatama: Housing Community 2016)

Compared to unsupervised and unassisted ageing-in-place model, SENIOR CO-HOUSING has many visible advantages. Importantly, most of them are preplanned at the design stage, hence rely on architect’s solutions. Among others are ensured accessibility, possibility for gradual increase of assistance level (relevant to resident’s needs), strategically chosen location that allows easy access to amenities and infrastructure, and layouts that encourage social interaction. All these measures help elderly people live more active, longer, life and leave special care facilities to those who really need them. (Varttuneiden asumisoikeusyhdistys Jaso)

Like in other cases, major developers and care providers try to catch the wave of senior co-housing movement by seeding community activities in their conventional developments. For instance, developer Kotosalla (Kotosalla.

fi) offers a service manager to help its elderly residents with a variety of everyday tasks, from organising a weekly activity programme to measuring blood pressure. At the same time, Jyväskylän Hoivapalveluyhdistys Ry, which specialises on all levels of assistance for young and old, actively participated in the senior housing project SENJA (Senjakoti.fi), and set the aim “to develop the community and inclusion of residents of the Senjian senior district, which supports the well - being and functional capacity of the inhabitants” (Senjakoti.fi). It is noteworthy that the satisfaction of residents here is measured by the World Health Organization’s quality of life indicator (WHOQOL-BREF) (Altti 2016).

4.2.2.2 Multigenerational communities

Internationally and in Finland

These communities benefit from intentional mix of generations under one roof. The proportion of age groups among dwellers is usually regulated by community rules and architectural brief includes specific needs for them. Below, I present a definition by Intergenerational Living Auckland (US). The reference projects prove that, with minor alterations, this definition works well for multigenerational communities worldwide:

“In an Intergenerational Living complex, people of different ages live together in apartment blocks or separate (usually terraced) houses. Units may be rented or privately owned, with separate titles. Each individual/family has their own self-contained space complemented by community rooms and gardens. Typically the community rooms are used for meetings, shared meals and for workshops/hobbies. In bigger complexes there might be a café which is open to the public, a laundry, rooms for child-care/youth activities, special ‘care apartments’ with professional care, and a guest room. Generally a complex will have 20-30 units and 40-60 residents. Ideally, one third of the inhabitants (families, singles, solo parents) will be younger than 40, one third 40 to 60 and one third older than 60. Residents show a willingness to embrace neighbourly co-operation. They give each other mutual support, for example help with driving, shopping, administration, paperwork, child supervision, and neighbourly help in illness and emergencies.” (Intergenerational Living 2010)

Multigenerational living responds to a wide spectrum of acute social problems among citizens, which explains its popularity in developed countries. For instance, Germany shows significant interest in multigenerational projects. According to 2012 Vorwerk Familienstudie, 79% of Germans over sixty liked the idea of multigenerational houses and 55% could imagine themselves in such a house. Young people showed similar results. Despite the significant interest, multigenerational living in Germany, remains “a pure niche product” (Stampfl 2015), because so far the initiative has been bottom up – based on individual applications without touching urban planning on a district level. (Stampfl 2015; Vorwerk Familienstudie 2012)

REFERENCE PROJECTS:

U. LeNa – abbr. for ‘LEbendige NACHbarschaft’ group, lit. ‘lively neighborhood’ (Lüneburg, Germany; 2004 - 2015) – 3 houses that accommodate 53 adults and 23 children (young families, couples and individuals of all ages). In addition to private units, they include: a community floor with a large group room, kitchen, large outdoor terrace and an office for self-government; sanitary facilities; workshops in the basement; a food storage; hobby rooms and laundry rooms. The property has a lot of outdoor space for recreation. (LeNa)



[53]

V. Generationen Wohnen (Burgdorf, Switzerland; 2016; by cooperative (reg.) 'Generationen Wohnen') – a project that encourages different generations to exchange services and resources. It is based on several new blocks that comprise 65 – 70 flats (2 ½ - 4 ½ rooms each). The environment is accessible and inclusive. Flats are designed with flexible floor plans for different use (e.g. flat sharing); they include supervised and assisted accommodation. The main features of the project are: inhabitants of any age and social group (incl. singles and single parents, people with physical and psychological disabilities); affordable rents; availability of services (on demand) by professionals and volunteers; daycare for children and elderly people; a meeting centre or a cafeteria for social, cultural etc. events; accessibility within houses and environment (for elderly and handicapped people). Generationen Wohnen Burgdorf was included in the Program for sustainable residential areas of the Swiss Confederation. (GenerationenWohnen; Pittini, Thorogood 2012)

W. Leuchtturm (Berlin, Germany; 2009; funded by the German Federal Environment Foundation; architecture by Irene Mohr + Karin Winterer and residents) – a multigenerational house in the centre of the Prenzlauer Berg district. On the completion there were 42 residents (27 adults and 15 children) – singles, families, pensioners and other social groups. The building has 7 residential floors and commercial premises on the ground floor. Due to high ecological standards among the cooperative's priorities, Leuchtturm building is rather independent of external energy sources. (Leuchtturm-wohnprojekt.de; Stampfl 2015)

X. Bridge Meadows (Portland, OR, USA) – a multigenerational community founded by a privately funded non-profit organisation. A number of affordable town homes and apartments house 29 low-income elders (55-92 years old) and 29 children (adopted or to be adopted out of foster care). The project was inspired by Hope Meadows (IL, USA) and, in turn, served as a model for many other projects "from a home for pregnant teens aging out of foster care in Washington, D.C., to a community for Native American foster families and elders across town in Portland". (Eckart 2016)

Y. Tremonia Park (Dortmund, Germany) – 21 unique units (50-160sq.m) – each designed according to inhabitants' will; include units that can be adapted over time. Preplanned social balance: 7 units – families, 7 units – elderly people, 7 units – younger singles or couples with no children. When one of the units turns



[54 - a]



[54 - b]



[55]



[56]



[57]

vacant, the co-operative finds residents for it from the same category to keep the balance. (McDonald 2015)

Z. Amaryllis (Bonn, Germany; 2007/2008; by Alte Windkunst and residents) – consists of three buildings (3 500 sq.m, 33 units, app. 70 people). It is a registered cooperative, whose intentionally various community "consists of solitary, single-parent, married, unmarried, families with children of different social backgrounds and cultures". The choice of units lets every resident find their amount of privacy: row houses, apartments and rooms to share. Large common area (170 sq.m), covered walkways that connect all three buildings, and totally barrier-free design. The building design is ecologically sustainable and cost-conscious with very low energy consumption (so-called KW 40 houses). (Amaryllis Mehrgenerationenwohnen; Singer 2008)



[58]

NB! Amaryllis inspired a few similar projects in the vicinity. Their chronological analysis reveals that later buildings tend to gradually eliminate faults of the earlier ones. Villa Emma (Bonn, Germany, 2011) can be a good example. Unlike Amaryllis, Villa Emma was initially oriented towards residents with assistance needs. Consequently, it has barrier-free, mostly wheelchair-accessible units; moreover, it cooperates with some outpatient nursing service. In my opinion, these improvements show the intuitive test-and-trial approach, through which the most efficient architectural brief is crystallised. (Villa Emma; Alte Windkunst)

The same improvement pattern is traced in the most recent development – Amaryllis PLuS (2016), which is an expansion project by Amaryllis. A new 2,5-storey building is planned close to the main buildings with 16 barrier-free apartments for app. 32 people. That shows that Villa Emma's accessibility statement was taken into account. Moreover, in terms of care, Amaryllis PLuS went further than Villa Emma and included into its brief integrated care facilities for 9 people with high care and support needs.

Since Amaryllis has been working with the same architectural bureau (Alte Windkunst), I presume that architects also learnt a lot in this gradual process and gained extensive knowledge of co-housing type. Although at the moment, alternative housing projects are more of a challenge for architects (require more time and effort than conventional ones), in the future, they should turn into a big advantage in any bureau's portfolio, as demand is growing.

4.2.2.3 Niche communities

The term 'niche community'¹⁶ is mainly used in US and Canada for retirement developments similar to the co-housing projects discussed above. However, I separate niche communities from senior co-housing, because neither age nor strong communality plays here the key role. In niche communities, residents are unified by some common interest much more specific than communal living or neighbours' support. Thus, access to specific facilities and freedom in self-expression are vital. I do not see why, in international perspective, such developments would not target youth or mixed-age affinity groups.

16 Sometimes called 'affinity group'.

The definition of niche retirement communities by Beth Baker would fit such mixed groups too: “*an apartment or housing development created on behalf of a constituency who share a common identity, such as sexual orientation, labor union membership, artistic inclination, or religious faith. A niche community may be built by a developer, an entrepreneur, or a nonprofit organization, and houses or apartments may be offered for rent or for sale*” (Baker 2014, 220). This definition already gives an idea of how various niche communities can be.

Internationally

Annie Gerard, an American marketing professional specialised in senior housing trends, names quite a few options:

“*There are now communities for nuns, nudists, artists, actors, teachers and virtually every religion, from Christian Scientists and Seventh-day Adventists, Presbyterians, Catholics and Zen Buddhists*”. Postal employees, gays, lesbians and RVers stand on her list alongside country music singers. She adds: “*There are even niche communities for Native American Indians and Asian- Americans, including one for Japanese- Americans and another for Koreans, so different flavors of Asian-Americans. That’s how specific it can get.*” (Sheridan 2012)

Moreover, the choice is not limited by the identity of residents, but depends on: life style (“*commune style*” vs more independent living); architectural layout (“*neighborhoods with a handful or more homes*” vs quite big planned developments); dwelling types (e.g. “*university- or military-based communities that offer apartments, condos, duplexes and cottages*”) etc. Interestingly, new niche communities in US are expected to be “*even more interest- and lifestyle-specific*”. Some would provide “*continuing care that gives residents services as they age, while others provide neither meals nor care but have created an arena for residents to pursue their passions.*” (Sheridan 2012)

Niche communities are rather specific to American culture. However, they may well gain momentum in Europe, within time; therefore, among the reference projects I show a few European examples of niche communities, since they would be a closer reference for Finnish development.

In Finland

Despite the soft spot that many Finns have for American culture and lifestyle, niche communities have not become a significant part of Finnish culture, although in Finland this type has a relatively long history (see e.g. Lallukan Taiteilijakoti). I presume that the cultural difference plays the key role here; Finnish society is rather homogeneous and inclusive by nature, without tendency to distinguish people by one particular attribute. However, the situation might change in the future; success of the recent niche developments and the following demand speak for that. Then, some Finnish initiatives may bring communities for, say, ageing architects, whose creativity boosts among peers. Another random example could be dancers, who prefer to live with good rehearsal facilities at hand and benefit from a choice of dance partners among neighbours.

NB! If niche communities rise, developers will start receiving very challenging tasks, since layouts of those communities will be much individualised. In addition to already known communal facilities and gathering halls (already common for real and pseudo co-housing projects today), there will be demand for a variety of most unusual functions, such as professionally equipped printing rooms and 3D model workshops (in case of architects’ community) or professional rehearsal studios (for dancers) with the highest requirements to acoustics and flooring materials). Robotic labs, software classes, co-working spaces and internet commerce courses can become core features for the next wave of such projects quite fast, although, at the moment, they are only starting with common kitchens, art studios and yoga rooms.

REFERENCE PROJECTS:

AA. NEST (Copenhagen, Denmark) – a co-living community for entrepreneurs that accommodates 21 people in 4 apartments “*creators, builders, and dreamers of tomorrow*”. On the official site, the team stresses out that NEST is not a co-working space, but a co-living where each member of community is bursting with ideas – a desirable quality when you work on your own start-up and when you want a full interesting life among your neighbours. (Nest Copenhagen)



[59]

AB. A House for Artists (East London; design stage; by Apparata and Grayson Perry) – a five-storey red brick rental block, it features low-cost flats and studios for 12 artists at different career stages and of different age (newly graduated singles mixed with mature artists with families); as a part of their rental terms, the residents have to run the built-in community arts centre. The project does not require communality, but rather encourages it (an eating and working outdoor space shared between every three apartments, shared living areas adaptable for communal childcare or events). (Mairs 2017)



[60]

AC. OWCH (Older Women’s Co-Housing) also known as **New Ground Cohousing** (North London; 2010-2016; by Pollard Thomas Edwards and OWCH) – a co-housing community only for women over 50. The project, which was designed for 20 women, consists of 1-3 bedroom apartments (8 of them are socially rented flats) and shared spaces (a big meeting room, kitchen with spacious dining areas, laundry and drying space, a room for guests with a balcony that can be converted into a meeting space, central lobby serving as an informal meeting zone). The garden features secret ‘culture’ garden and a craft shed. (Pollard Thomas Edwards; OWCH)



[61]

AD. Lallukan Taiteilijakoti – (Töölö, Helsinki; 1930s; by Gösta Juslen) – a House for Artists initially designed for such purpose. It features 53¹⁷ apartments with 24 studios designed to provide plenty of daylight, which is a crucial element of visual artists’ work environment. The house gathers visual artists, sculptors, actors, and musicians among its residents, who are unified into Lallukan Taiteilijaklubi (Lallukka Artists’ Club), which facilitates various social events and serves for organisational purposes of the community. Rental periods are unlimited. The queue for a flat



[62]

17 Information on the number of apartments varies. The official site features 53 apartments (en.lallukkasaatio.net), while some articles about House’s recent restoration (Taiteilijakoti Lallukka, 2017) refer to 56 apartments.

results in 15-16 years of waiting, which shows some unsatisfied demand for such alternative housing option. (en.lallukkasaatio.net; Taiteilijakoti Lallukka, 2017; Toppila 2017)

AE. Jallukka – (Jätkäsaari, Helsinki; 2017; by Elävän musiikin säätiön and Y-Säätiön) – a rental house for musicians and other specialists of the field. It consists of 74 rental apartments divided in 25/49 ratio between the two foundations. The spacious apartments start from 42,5m² and offer a choice of layouts (6 types overall); some flats are higher than others (3m) and have additional lofts. Popularity of the project triggered further search for plots to build similar developments in other Finnish cities. The next announced site is Kaleva district in Tampere. (Jallukka.fi; Pesonen 2018)



[63]

AF. Kipparintalo – Co-housing for the disabled young (Finland) – a block of flats for young people with learning disabilities. Based on communal living, it thoughtfully combines shared spaces with small flats meant as first independent dwellings for their residents. Includes: a common kitchen, sitting room, facilities for staff, and a communal block for residents with autism (towards the yard). Especially designed flats serve their residents very well. (Leiviskä, Murtola 2016)



[64]

4.2.2.4 Ecovillages

Some authors (e.g. Vestbro, Horelli 2012) leave ecovillages outside co-housing communities, while others gladly include them into this category. In either way, ecovillages are a well-recognised global trend; therefore, I include it in the current review.

According to Global Ecovillage Network (GEN), “an ecovillage is an intentional, traditional or urban community that is consciously designed through locally owned, participatory processes in all four dimensions of sustainability (social, culture, ecology and economy) to regenerate their social and natural environments”(Global Ecovillage Network). It is evident, though, that ecovillages are much closer to the ecological and economic aspects of sustainability than to the social one. Moreover, some studies suggest that, in many cases, economic outweighs ecological (Marckmann et al. 2012).

Architecturally, ecovillages take various forms, but are always characterised by technological innovations compared to conventional dwellings of the same type. These innovations save nature, but as importantly, they save dwellers’ money, especially with a relatively dense layout. In addition, those technologies are often quite expensive themselves and require certain behaviour by inhabitants to be efficient. Thus, the members have to follow a set of rules in their everyday life and share community’s believes. That puts ecovillages close to niche communities based on ethnicity or religion; after all, many call environmentalism a future religion and some even legally recognise (Blacker 2009).

However, the true motivation of ‘adepts’ can vary. Although S. Korpela, in her classification, puts ecovillages into *Serving a Common Ideal* group (Korpela 2012), the analysis by B. Marckmann et al. suggests that, in reality, many cases would rather go to the *Building Together* group (Marckmann et al. 2012). The latter consists of people, who participate in projects mainly to benefit economically, but who do not truly share community’s views or desire for interaction. In my opinion, this group is genuinely underestimated in literature on co-housing. When it comes to chitchats, many participants prioritise economic reasons.

Although ecovillages give enthusiasts an opportunity to live their ecological ideals, they have another important social function. Ecovillages work as laboratories that test and socially promote ‘green’ innovations. Once a new ecological practice or technology is proved money-wise and scalable in ecovillages, it proceeds to the market (as a product or as developer’s standard). Then, this product becomes popular among general public for economic reasons. Only then would it be able to truly change the architectural environment. Solar panels or energy performance standards are a good illustration of this path.

CO-HOUSING – SUMMARY

WHAT PEOPLE WANT: save money (on rent/flat cost, on bills, meals, entertainment); have dwellings that ideally fit their needs and ideals; live among like-minded people (common values bring understanding); have help (with everyday tasks); fight boredom and loneliness (through common activities); have their own rules (e.g. ‘no-small-kids’ environment or eco-friendly lifestyle); establish communality (exchange of experience and ideas); feel secure (acquaintances instead of strangers around); feel independent (tasks and responsibilities); feel active (involvement into common activities); feel needed (responsibilities to carry); feel supported (friendship that helps adapt to difficult circumstances in life); have fun (leisure activities, hobbies and parties); have regulated privacy (encouraged encounters with ability to withdraw any time); have assistance at hand.

WHAT CAUSES THIS TREND: anonymity within conventional housing blocks (lack of socialising, nobody to ask for help); too uniform solutions on the housing market (many people have important individual requirements); developer’s market (high demand, big market players are inertial and not interested to build for special requirements); rise in active population (people better realise their rights and power); longer active life for the elderly; rise in nuclear families (lack of socialising and need for help); decrease in income level (economic crisis - high unemployment rates, lowered social insurance); quickly ageing population (lack of socialising and need for help); globalisation of job market (disconnection within families); expensive professional care (be it babysitting or nursing the elderly).

(POTENTIAL) FLAWS: time-consuming unconventional negotiation process at all stages of development; a big number of participants, who are unfamiliar with planning process and building constrains (necessity to educate customers on relevant topics and ensure common vocabulary); often no consensus between customers about the architectural brief (different priorities and parties formed within the community); a

strong necessity to coordinate meetings (additional load on architects designing the building compared to conventional process); for senior co-housing projects: especially complicated brief (no barriers, amenities at hand, compulsory physical activity, and a combination of impairments that have controversial requirements).

WHAT IS MISSING: structured procedure developed, tested, and later officially established for such projects; professional help in process organisation (regular organised meetings with all parties, education on discussion subjects when needed, facilitators helping at the meetings, conflict-prevention and conflict-solving); promotion of co-housing ideas among population of all ages and step-by-step assistance (e.g. in juridical procedures, funding, choosing an architect etc.).

WHAT ARCHITECTS CAN: ensure flexibility (technical – in dwellings, mental – in tailoring a brief); ensure accessibility (obstacle-free access to all common areas and at least some apartments); foresee rise in assistance needs (possibility for gradual adjustment); clarify borders between private and communal spaces (no forced encounters); design layouts that encourage encounters; spread communal space evenly (either vertically or horizontally) and link it to outside (prioritise inner yards); provide expertise on building options for further discussion within community; recommend plots in good connection with amenities and institutional help (for elderly residents).

A diverse programme for common areas is one of the keys to flexibility in co-housing, since it shall satisfy various (social) needs of its residents and provide to each dweller what they seek in this alternative living scheme. Reference projects feature shared spaces that imply the following types: active interaction (e.g. communal kitchen, dining room, club room), self-occupation (e.g. hobby room, gym, library), daily tasks (e.g. day care, office, co-working space), chores (e.g. laundry rooms, workshops, storages, bike shelters, garages etc.), occasional needs (guest room, ball room, meeting centre), leisure/employment (commercial spaces or cafes). Furthermore, levels of involvement vary too, e.g. common yard vs winter garden, lounges vs group rooms, private sauna compartment vs common ones. It makes it important to spread common spaces of various functions evenly, so that people who need some quiet environment could find it when other common zones are occupied by noisy activities.

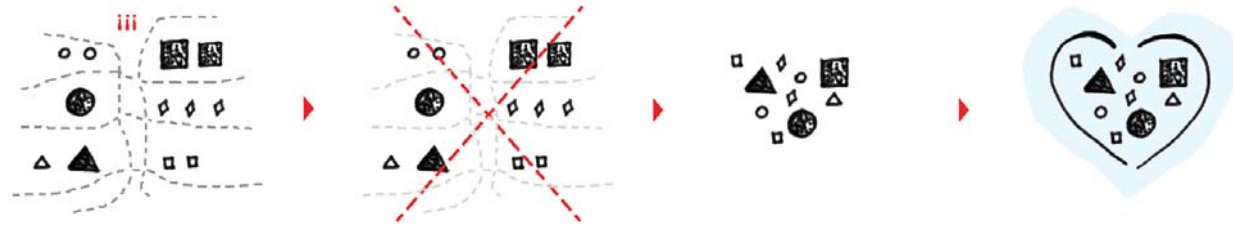
Such choice of spaces graduates levels of privacy, offering a comfortable buffer zone between the two extremes – the private bedroom and the street. At the same time, it protects borders: enough space for each function means fewer rooms forced to multifunction (or an opportunity for people to find an alternative room). That creates a healthy social microclimate when everyone can enjoy themselves with no harm to others. At the same time, unoccupied space calls for use, hence boosts creativity. Moreover, multiple functions under one roof save dwellers' time. Coupled with neighbourly support, such solution makes everyday tasks easier and secures more quality time, which enhances satisfaction in dwellers. Thus, the flexibility of architectural brief leads to inclusivity and creates socially sustainable environment. Various private units (e.g. a certain ratio of 1-2-3 bedroom units or standardised but transformable units) enhances adaptability, inclusivity and sustainability of developments.

Nevertheless, the strongest social impact of co-housing stems from its versatile community programme. Although themes of co-housing communities vary, they all mean to provide space for unsatisfied societal needs – from elderly (self-) care (e.g. Loppukiri) to foster families (Bridge Meadows), from artistic expression (e.g. A House for Artists) to entrepreneurial endeavours (e.g. NEST) etc. Together with a multigenerational and socially diverse mix of residents, that sets additional challenges to architects, because it requires a well-

considered layout (where kids, old members and teenagers do not interrupt each other but can enjoy common activities), a strong strategy for future (when babies grow and elderly members need more assistance) and, occasionally, a complicated mix of purposes, disadvantageous in terms of technical requirements. In case of success though, community's architecture becomes exemplary for the type and inspires analogues development (see e.g. Amaryllis).

Thus, good design has means to support both programmatic and community aspects of co-housing enhancing its positive social effect. Resulting satisfaction in dwellers and acception by critics (incl. city authorities) shall promote co-housing idea among the general public, where it is traditionally associated with student culture and hippy-ish lifestyle incompatible with respectful citizens. Architects' own experience as members of co-housing communities can help here a lot. If architectural society supports co-housing idea, such developments have better chance to become a legitimate part of conventional housing and work as a social sustainability tool for growing cities.

4.3 MULTIGENERATIONAL LIVING (aka Intergenerational living etc.)



Although co-housing communities are often various by age, it is not their main purpose to bring several generations together and, consequently, not always the case. Moreover, an unspecified co-housing community rarely responds to the acute age-related problems of contemporary citizens: quickly ageing population, increasing unemployment among young professionals, and lack of care centres. Multigenerational living solves these problems comprehensively. It is usually urban and based on intentional mix of ages and social groups. My literature review reveals that multigenerational living receives more attention from social perspective (Vanderbeck, Worth 2014), than from the architectural or urban vista.

Internationally

In the early 1990s, Denmark became a pioneer in multigenerational living having its first multigenerational communities (Krüskemper 2012). Nowadays, the trend is also boosting in Sweden, the Netherlands, Germany, UK, Switzerland, Belgium, Spain, Italy, USA, Australia etc. – “in a number of industrialised countries with similar demographic developments” (Krüskemper 2012). The mechanisms behind the movement may vary, depending on a state system, but all countries agree that it is “a positive choice that provides access to larger properties through pooled resources, and flexible styles of living that enable provision of child care and security for adults in older age” (Burgess et al. 2017).

Thus, for seniors it means ageing in place and without loneliness, which leads to longer active life and higher satisfaction. For young parents, multigenerational living saves time and money on babysitting and chores. Both parties, at the same time, benefit from lower rental cost and significant decrease in bills. (Harrell et al. 2011) Moreover, the state budget benefits from multigenerational scheme too, thanks to significant economy on care funds, e.g. estimated 30-50% per head in Germany (Oltermann 2014).

My search on the topic outlined two types of solutions circulating under the name ‘multigenerational living’. I conditionally name them Bottom-up scheme and Top-down scheme. Although they aim to overcome the same challenges, they differ by origins, scaling mechanisms, and geographical distribution. Bottom-up scheme is a result of demand within society gradually recognised by developers. Top-down scheme is based on institutionalised care and calls for further implementation on the state level.

4.3.1 Bottom-up scheme

4.3.1.1 Multigenerational individual houses

Bottom-up scheme is the most natural solution intuitively found by families themselves and gaining scale these days, as people in different countries meet similar difficulties. To illustrate the process, here I describe a few exemplary situations that cause problems for many urban households nowadays.

1. A widowed grandmother becomes unable to look after her big flat/house. She does not agree to move into some smaller dwelling, nor does she let the spare rooms for rent, because it is ‘dangerous’ or ‘troublesome’.
2. A family realises that their granddad needs more and more assistance, yet they cannot afford it at a specialised elderly house.

3. In the third case, a single mother would have to return to work. A nanny is too expensive for her, while baby’s grandparents live too far to come for help every day.¹⁸

After many discussions, each of these families decides to move together – old and young under one roof. Before this decade, only two solutions were available. People could either choose the bigger property they already owned (e.g. the flat/house belonging to our widowed grandmother in case 1.) or they would buy one bigger dwelling after selling their individual properties. In either case, their new house/ flat would never really fit its new function, because it was not designed with a multigenerational household in mind. Hence, together with the desired benefits of multigenerational living, these families would face such downsides of communality (Riley, Bowen 2005) as queues to bathrooms, several chefs in one kitchen, mismatching routines, and an overall lack of privacy.

However, today, people have a few more options. In some countries, several families need to find each other and create a cooperative to design and build units that can facilitate their needs properly. In other countries, developers already sell especially designed mutigenerational dwellings¹⁹. (Liu, Easthope 2016)

For example, individual multigenerational houses gain momentum in USA and their number is expected to grow significantly over the next two decades (Housing America’s Older Adults 2014). Almost 20% of Americans already live in multigenerational households (Cohn, Passel 2016); 44% would live with their elderly parents in the next dwelling; 42% consider moving in with their adult children. Among the main reasons for this researchers name: a) recession and resulting unemployment among youth; b) later marriages among Millennials; c) Asian and Hispanic immigrants, who have a cultural habit for multigenerational living. (Olick 2016)

The American multigenerational house is spacious and has the following layout features (Bady 2011):

- ▶ First-floor master suites and dual masters
- ▶ Lower-level living areas
- ▶ Living space above the garage or in an extra garage bay
- ▶ Separate entrances
- ▶ Second kitchens
- ▶ Private spaces for each generation
- ▶ Rental apartments within single-family homes

European developers choose a different approach. They, too, see potential in multigenerational homes, but pay more attention to optimisation and flexibility of layouts. For instance, analysis made for UK suggests 3 or 4 feasible types of houses, which can be developed and marketed as conventional ones and which - after some minimal alterations - would perfectly suit multigenerational living scheme (Burgess et al. 2017).

4.3.1.2 Multigenerational communities

Although these communities are thoroughly discussed among the Specified co-housing projects above (because they belong there by form), here I mention them again to show the strength of the multigenerational movement and to fully present the variety of architectural solutions born within its borders.

¹⁸ Unlike in Finland, where communal daycare system works very well, in many countries it works only on paper or on generally different grounds. For many European and American kids it takes years to have a place in a kindergarten; the quality of care there is often questionable, while private daycare is rather pricey due to the high demand. Thus, it is customary to have a babysitter.

¹⁹ Finding an architect and building their own house is hardly affordable and very time-consuming for an average urban family, thus I do not view this option.

4.3.2 Top-down scheme

Into this group I put various combinations of institutionalised units, such as elderly housing, student housing or kindergartens. Apparently, these types stay slightly aside conventional housing, but they might well enrich its typology in the future. My architectural vista favours only full co-habitation and eliminates part-time projects, where the young and the old live separately but meet according to some schedule (e.g. multigenerational centres that provide day-time activities).

The name of this conventional group does not necessarily mean that initiative comes from states or municipalities. In fact, they include local experiments and private firms' enterprises. However, the operational level definitely calls for further state interaction – adaptation and popularisation.

In Finland

In Finland, multigenerational living is still at a relatively early stage. Some researchers see the reason in the law system (Nordic Welfare ideology), with its emphasis on the nuclear family and no legal obligation to take care for elderly parents (Arber, Attias-Donfut 1999). It is traditional for young people here to move out in their teens. However, the situation is changing due to higher unemployment rates among youth. Children tend to live with their parents longer (Oman Muotoinen Koti). Another relatively new trend in Finland today is families who share homes with grandparents. This way older family members can help with kids and spend more time together. (Sayej 2013)

REFERENCE PROJECTS:

AG. Next Gen (by Lennar) – ‘The Home Within a Home’. This American developer has been offering a choice of “Two homes. Under one roof” across US since 2012. By the layout, it is literally two-in-one. Each of Lennar’s multigenerational houses consists of two units sharing some inner walls and the main porch; each unit has its own entrance door and is connected to the other via an inner door. (Lennar.com)

AH. GenSmart Suite (by Pardee Homes) – another offer by one of the major USA developers with very similar characteristics. (Pardeehomes.com)

AI. Housing for Young Mothers and Seniors (Houten, The Netherlands; 2012; initiated by Stichting Timon together with Habion) – a housing complex with 17 apartments, where 13 flats are offered to young mothers and girls in difficult life situation, until it is improved and they can live independently. Four apartments are permanently occupied by ‘good neighbours’ – the elder people trained to be coaches for those girls. (Pittini, Thorogood 2012; Timon)



[65]



[66]

AJ. Intergenerational Learning Center (Seattle, WA, USA) – “an award-winning child care program located within Providence Mount St. Vincent in West Seattle. Both planned and spontaneous activities and programs for children take place throughout the building and campus which is also home to more than 400 older adults. Five days a week, the children and residents come together in a variety of planned activities such as music, dancing, art, lunch, storytelling or just visiting.” (Washington.providence.org)



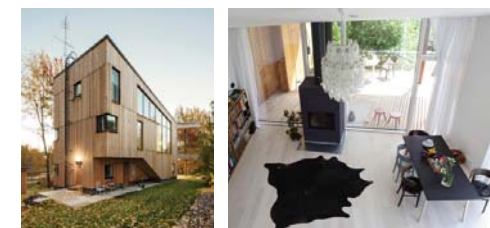
[67]

AK. Humanitas (Deventer, Netherlands) – a nursing home that offers university students free accommodation in exchange for at least 30h spent with its elderly residents “watching sports, celebrating birthdays and, perhaps most importantly, offering company when seniors fall ill.” Age balance: 6 students/160seniors. With some variations, this Intergenerational Programme is run in Lyon (France), Cleveland (OH, USA) and very actively across Spain (27 cities since 1997) – all under the wing of IAHSA (International Association of Homes and Services for the Ageing). (Humanitasdeventer.nl; Judson Senior Living; Esdes InterGénération; The Global Ageing Network 2015)



[68]

AL. House M-M (Helsinki, Finland; 2013; by Tuomas Siitonen Office) – a three-storey private house (145sq.m) for an extended family, where mother, father and 2kids live on 2nd floor, great-grandma (a wheelchair user) – on 1st floor and grandparents inhabit their own unit on the same plot. (House M-M 2014)



[69 - a/b]

AM. Generations Block (Helsinki, Finland; 2017; by a wide committee including Aalto University, Tekes, ARA, the Ministry of Environment, the City of Helsinki, Asuntosäätiö, HOAS, Setlementiasunnnot, and many others; architecture by Hedman, Matomäki) – a freshly finished multigenerational project on Jätkäsaari island is a result of 6 years of careful research. Its design encourages socialising among inhabitants. Three urban blocks (more than 400 units overall) belonging to the three main developers are united by a fully accessible passage that goes through the common areas on the ground floor. Some of these zones are: a big common room with the common kitchen, a sauna, a wood workshop, laundry&sewing space, gym, an acting stage, a soundproof music room and a common yard. Activities are voluntary, but well-organised by the coach and the community coordinator. Activities are announced through social media and on the official site. (Sukupolvienkortteli; Rönkä 2017; Generations Block 2017)



[70]

AN. Oman Muotoinen Koti – ‘A Home that Fits’ – (Helsinki, Finland; 2015; by The Finnish Youth Housing Association (NAL), Y-foundation and Design Driven City; the City of Helsinki as a coordinator) – a scheme that offers cheap accommodation for under-25s at Rudolf Seniors Home for one year. In return, they spend 3-5h per week with their elderly neighbours. The model is an adapted version of the Dutch analogue (Reed 2015). Its success, in turn, inspired a similar project in Australia (Aged Care Guide). (Oman Muotoinen Koti; Macguire 2016; O’Sullivan 2015)



[71]

MULTIGENERATIONAL LIVING – SUMMARY

WHAT PEOPLE WANT: save money (on rent/flat cost, on bills, meals, child care); have help at hand; feel secure and supported (family members to rely on); have regulated privacy (access without unwanted encounters); spend more time with family members (or family-like community); feel active (for older generations); feel needed (for both old and young); live in a dwelling that fits all the above needs.

WHAT CAUSES THIS TREND: expensive professional care; later family formation; too uniform solutions on the housing market (conventional urban units are not designed for multigenerational living); rise in active population (people better realise their rights and power); decrease in income level among young professionals (economic crisis and high unemployment rates); quickly ageing population (lack of socialising and need for help); globalisation of job market (disconnection within families and need for a substitute); anonymity within conventional housing blocks; insecure parental leave; lack of elderly homes.

(POTENTIAL) FLAWS: a relatively new concept for urban reality (no well-established programme, regulations or demand); if not treated accurately, this trend can also cause challenges in the future (to adapt multigenerational units for singles or for home sharing, e.g.).

WHAT IS MISSING: further marketing research would define local demand and potential; architectural design investigations, in turn, would find optimal solutions based on that.

WHAT ARCHITECTS CAN: design thoughtfully (with future changes in mind); ensure privacy and easy access (independent units for different generations with easy connection; clear borders between private and communal zones); ensure flexibility (transformation of dwellings when kids grow or grandparents pass away); ensure accessibility for older generations (at least obstacle-free access at the ground floor); create possibility for gradual adjustment - depending on assistance needed); educate clients on design possibilities; promote positive impact of accessible environment among developers (back it up with research); carefully mix multigenerational units with other types in one project (to create diverse built environment).

For instance, such reference project, as House M-M, demonstrates principles of vertical rotation for 2-storey units: the oldest family members occupy the lower level due to accessibility issues; within time, next

generation ‘comes downstairs’ and so on. Next Gen and GenSmart Suite set examples of horizontal division between generational zones for one-storey units. Applicability of these examples to conventional urban blocks is concerned with accessibility questions – inside and outside units. Intentional conversion of a big apartment into a multigenerational 2-in-1 unit can perfectly serve for the oldest family members inside, but fail outside, if the unit is located above the ground floor (neither will it work with a high ground floor). Thus, at the moment, such conversions seem most feasible after or within the overall refurbishment or reconstruction work performed on a house by local authorities.

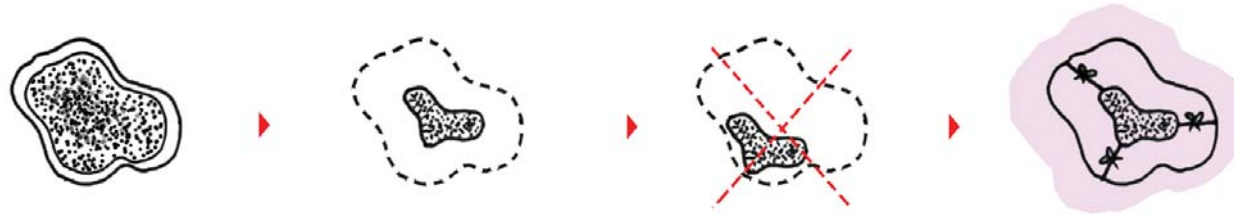
Then, addition of (spacious) lifts and adjustment of landscape solutions to the modern accessibility standards shall allow multigenerational flats on any floor. The simplest solution could be based on combining two neighbouring flats into one; another version - on dividing big flats accordingly. In cases, when lifts are not possible, multigenerational units could be added on the ground floor where ramps and other necessary aid features are installed. Such units shall add variety to residential blocks, refresh their social programme, make them more inclusive (as these accessible units will universally serve physically challenged people of any age) and mixed, hence they will firm social sustainability by means of architecture.

The same positive social outcome shall be expected when new units are developed based on the above principles. There might be no demand for blocks of multigenerational flats; moreover, like any mono-functional development, such blocks would be socially unsustainable. Rather, a healthy portion of 2-in-1 multigenerational units could become customary for residential blocks, providing those blocks fully respect the latest accessibility regulations. The latter shall be rather demanding; at least, in the ‘elderly’ zones of flats. For the oldest family members, that will ensure comfortable ageing in place – surrounded and supported by relatives – which is a recognised way to longer and healthier life in comparison to lonely existence in specialised facilities. Younger family members will benefit too: parents will have help and advice, kids will see their grandparents and learn from them. Thus, through architectural design, social sustainability will be preserved and even improved in a particular locale.

Notably, 2-in-1 multigenerational units resemble previously discussed ‘micro community’ flats suggested for home sharing. That brings ideas about potential programmatic exchange between these trends. When, at some point, demand for multigenerational flats falls, they can be used for home sharing, as they are based on the same balance of space – ‘private vs communal’. Respect to accessibility requirements shall make them good for dwellers with assistance needs (and their relatives or nurses accommodated in the other part of the unit). The reverse conversions (home sharing ‘micro community’ flats into multigenerational flats) will be more complicated, yet possible – after reaching the relevant level of accessibility. Rather inexpensive initial design applicable to existing housing stock (2 unified flats or separation within one big unit) and easy future conversion may well turn multigenerational flats into an advanced social sustainability tool of the future, when commercial home sharing micro-communities and multigenerational family flats balance each other following demand dynamics in a particular neighbourhood.

4.4 AGEING IN PLACE

(Community Without Walls, Naturally Occurring Retirement Community, Village Model etc.)



Architecturally, contemporary 'Ageing in place' concept is mostly concerned with accessibility and adaptability of existing housing stock. The discussion on these two questions is rather mature in architectural circles and already reached policy level. Thus, new developments that rely on new norms, in theory, should avoid relevant problems in the future thanks to a number of innovations. Obstacle-free environment, spacious adaptable layouts, bathrooms that allow additional aid items, various mechanisms and gadgets – a lot of features already make every day of the elderly easier.

However, from the social perspective, it is not enough, as ageing is often bound to loneliness and isolation. These factors significantly accelerate decline in mental and physical abilities (Holt-Lunstad 2015). Hence here I view a few initiatives that support the social side of the ageing-in-place concept. At the moment, such schemes use people resources much more than concrete and brick, which makes them less relevant for my present research. However, in the future, they might impact housing more significantly producing a new type of urban units necessary to facilitate help nets in districts. Thus, architects and urban planners should be ready for it. Below, I outline some of these initiatives through their definitions.



[72]

Community Without Walls — “a network of older people dedicated to creating friendship and social opportunities for members, who pay modest dues. Volunteer-run, and organized in chapters known as Houses”. (Baker 2014)

Naturally Occurring Retirement Community (NORC) — spontaneously formed senior community that appears when a substantial number of residents in some area naturally age in place. Programmes that support the elderly in such neighbourhoods are called NORC-SSPs (sometimes shortened to NORCs) and can be sponsored by state government, municipalities, housing cooperative, non-profit organisations or through grants. Although some modest fees may be in use too, services are provided based on locale rather than membership.

Village model — “an organized way to help people age in place in a particular locale, through support from volunteers and/or paid staff. Most Villages are membership organizations, offering members a central contact point for non-medical assistance, such as transportation and home maintenance, as well as friendship and social activities. Members typically pay dues to cover staff and office expenses, in addition to raising money from grants and special events”. (Baker 2014; Scharlach et al.).

NB! To conclude, the above network schemes could be an interesting reference for Finnish policy makers and elderly people in general, because ageing in place is already a big part of Finnish reality. In turn, Finnish elderly care model, which promotes ageing in place for as long as possible, would be a good example for other countries (Finland & England).



[73] Ageing in place promotes healthier lifestyle and active socialising among elderly people, which sets a good example for all ages

If, for instance, USA tomorrow takes a major course towards ageing in place - like UK does nowadays - its network of volunteers will extend and gain density; the list of activities and assistance modes will also grow. I presume that in the end, volunteers will be replaced by permanent workers and new permanent units will be built to facilitate administrators, managers, performers, and participants of those activities.

Swedish model, in my view, presents a result of such transformation. There, day centres for the elderly play the role of district key points – places where seniors meet each other and share some activities (common cooking, exercises etc.). (Elderly Care in Sweden) Such centres might soon transform into multigenerational centres for day activities (it happens a lot in Germany), but will remain an important part of urban planning.



[74] If built for today's demand, elderly houses could become a serious problem once demographic situation has changed

AGEING IN PLACE – SUMMARY

WHAT PEOPLE WANT: age in a familiar environment; save money; have help/assistance at hand; fight loneliness; feel supported; feel independent; have fun; have dwelling that ideally fits their needs; have an autonomous dwelling.

WHAT CAUSES THIS TREND: expensive professional care; quickly ageing population (lack of socialising and need for help); lack of elderly homes; decrease in income level (economic crisis, high unemployment rates, lower social insurance); longer active life for the elderly.

(POTENTIAL) FLAWS: growing loneliness among the elderly; late assistance in case of emergency (no regular checks); earlier decline in physical and mental abilities.

WHAT IS MISSING: understanding among authorities that ageing in place is not a simple trick to economise on the budget – it requires a lot of costly measures to make sure that every elderly person is still cared for by the state health care system and involved into social life of the neighbourhood; regular checks on elderly people living alone; social networks for them to find friends (social workers not necessarily establish friendship-like relationship); activities that involve different generations; regular physical activities; updates about new gadgets and other assistance tools designed for the elderly.

WHAT ARCHITECTS CAN: keep in mind all possible types of users and their visitors, when designing housing projects; create obstacle-free environment; ensure enough light in dwellings and on the paths to them; actively use tactile, colour and sound in design; suggest more creative dwelling solutions that can transform and age together with their owners.

Ageing and various impairments connected to it usually raise questions when it comes to correct architectural design. Especially challenging is environment oriented to multiple impairment groups, such as day centres for the elderly discussed above. For instance, people, who have problems with walking, need obstacle-free environment and favour smooth flooring surfaces to avoid stumbling. White cane users, vice versa, need clear barriers and tactile strips on the floor. Hearing loss implies well-designed acoustic environment to enhance clarity of speaker's voice (e.g. during some meeting) and absorb interrupting noises (e.g. footsteps on hard flooring). Some thick carpet seems the obvious design solution in this case (together with special wall and ceiling materials), yet it also creates problems for wheelchair users, since their transport gets stuck.

In general, ageing-in-place environment, be it a district centre for seniors or a residential block, calls for solutions associated with healthcare architecture. In fact, many of them are rather simple and universally beneficial for all people. More direct day light (which is proven to enhance mental health and fight depression), colours for better space orientation (work well for everyone, not only dementia sufferers), clear indication of obstacles and steps, big letters and clear pictograms for easier reading (they also stay in memory longer than numbers or words, which helps people with memory disorders orient themselves), automatised door openers, additional railings and enough sitting points between destinations (inside and outside, e.g. in a long corridor or on the way to the local shop), – all these design features have positive effect not only on physically and mentally challenged people, but on all other categories of users. Small kids, mothers with

prams, people with bicycles, carts or big shopping bags will be glad to find a ramp next to the stair or to open the heavy door by pushing a button. No need to mention lifts that are regularly used by all people, including healthy inhabitants of first floor apartments.

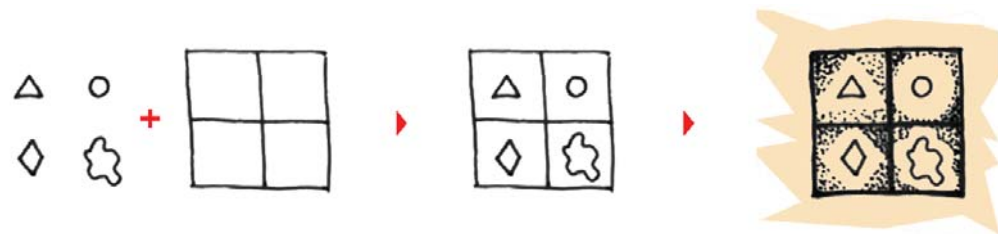
Thus, the above architectural aid concerns all categories of users. These measures (when introduced to conventional residential blocks) will not only ensure easier ageing in place for its elderly residents, but also help their relatives, visitors and neighbours. Consequently, they increase general satisfaction with life among dwellers, give them more opportunities to be outside and stay healthier thanks to open air activities (assistance tools on their way make it possible). Another positive social outcome is more socialising (regular walks as a better chance for organised meetings and random encounters, e.g. in the courtyard), which improves health and extends life span.

On the city level, it means solving a big demographic dilemma (lack of elderly care facilities vs increasingly greying population) with additional social benefits as a side effect. On the one hand, investing into relevant assistance tools and flat refurbishments will decrease pressure on elderly homes and hospitals created by accelerated ageing (experienced by many European countries). On the other hand, when this pressure is gone, aging-in-place programmes will leave after themselves comfortable housing units surrounded by an inclusive environment. Nevertheless, this sustainable solution raises the question of optimal assistance level provided to elderly households (and occasional feasibility problems in old flats), as well as the question of relevant policies, which reflect that assistance level on paper.

Discussion on the latter definitely concerns architects and urban planners. In addition to the expertise in technical feasibility and efficiency, architectural society should formulate and defend its firm position concerning such measures in general. To do so, architects should be provided with more theoretical and practical knowledge of possible impairments and their everyday needs. In my experience, those architecture students, who have a close friend on a wheelchair or had such experience themselves, tend to design accessibility of their projects more carefully than others. Unfortunately, forced by developers, graduate architects often have to suppress their good intentions and find ways to eliminate accessible solutions as 'additional cost'. In that case, city authorities shall step forward and firmly support introduced policies. However, instead of either declining challenging projects or easily granting dispensations that question importance of rules, cities could help architects find individual solutions using creative approach and thus accustom developers to necessity of inclusive design.

4.5 SQUATTING

(aka The Land is Ours, Occupy, Centri Sociali etc.)



“Squat (vb.) - to occupy land or property without title or authority Many systems give some protection to squatters even if only to the extent of requiring juridical process for removal.” (Stewart 2006)

In this part, I focus on urban squatting, which Hans Pruijt defines as “*living in – or otherwise using – a dwelling without the consent of the owner*” for “*relatively long-term use*” (Pruijt 2013a). He distinguishes 5 types or ‘configurations’ of urban squatting, namely:

- **Deprivation-based squatting** – the oldest configuration, involves poor, working-class people who are suffering severe housing deprivation. It implies that such people are seen as deserving accommodation and have virtually no other options than living in a shelter for the homeless. It is tightly organised, with clear distinction between activists and squatters. Activists, who are usually of middle-class origin, open up buildings for the squatters and provide further support as an act of good will.
- **Squatting as an alternative housing strategy** – or “*squatting as a more or less viable alternative to (sub)renting*” (Pruijt 2013a, 25). This configuration is younger, less restrictive and includes people of middle-class origin, like students, visual artists and musicians. Coming from a desperate situation is not required. These people are not necessarily seen in need of housing (e.g. unmarried/ without children/ young/ well-trained professionals) and are not necessarily homeless, but cannot find legal accommodation that meets their requirements (e.g. artists or radical DIY enthusiasts). The poor included feel less stigmatised among members of this group.
- **Entrepreneurial squatting** – provides opportunities for setting up almost any kind of establishment with less resources and no bureaucracy. A few examples of such enterprises are: neighbourhood centres, squatters’ bars, artists’ work spaces, practice facilities for bands, women’s houses, restaurants, print shops, theatres and movie houses, tool-lending services, alternative schools, daycare centres, party spaces, art galleries, book and information shops, spiritual centres, give-away shops (shops in which everything is free), food shops, saunas, workshops (e.g. for bicycle repair, car or boat restoration), shelter for people in distress or an advisory service with language training for migrants.
- **Conservational squatting** – a tactic used to preserve a local cityscape or landscape. The goal is to prevent a (planned) transformation, and to promote development in a different direction. Such opportunities arise because impending changes in land use result in vacant buildings. Squatting can increase resistance to land use change because the hot spots of the change – those places where the original inhabitants and users have already been displaced – become populated again. Historic buildings that are standing empty



[75] Immature radicalism is the most noticeable but not the only side of squatting

awaiting demolition offer opportunities. Entire neighbourhoods that are scheduled for (partial) clearance, invite conservational squatting alongside other types.

- **Political squatting** - has its own logic, which deviates sharply from the logic of the other configurations. Because of its high potential for confrontations with the state, Political squatting is used as a source of counterpower (vis-a-vis the state) by those who are engaged in anti-systemic politics and who identify themselves with revolutionary or ‘autonomous’ ideas. Thus, here squatting is not a goal in its own right, but rather a tool. (Pruijt 2013a)

I state that 4 out of 5 above types (except Political squatting) could be transformed into somewhat useful for both city and citizens, depending on a particular situation. Unfortunately, Political squatting, with its close relation to sub-cultures and violent political protests, attracts most attention in mass media, and consequently, comes to mind first when the topic of squatting arises.

Internationally

Nevertheless, despite all its unpleasant connotations, squatting appears more and more in the urban regeneration discussion of today. The reason is simple – the slow machine of urban planning fails to multitask when facing numerous social challenges simultaneously. This machine was designed to solve one issue at a time, to either concentrate on young or old, to help singles or big families. It is used to work on clear scenarios - majorities and stable life paths - unimaginable in a highly individualised and pro-active society with economic, housing, and refugee crises on top. The world that is changing at an unprecedented speed requires flexible, self-adjusting solutions able to fulfil demands of today and alter by tomorrow; and that is when squatting may help.

Indeed, when concomitant political and legal issues are peeled off, squatting idea sounds very promising. It combines co-habitation, self-organisation, in-fill character and creativity. The combination must be very attractive in times when so many cities suffer from homelessness, lack affordable housing, struggle to maintain city properties, dream to brighten their suburbia with social life, and fail to monitor real demands in real time. Legalisation of squats across Europe proves that (Serpis 2012; Pruijt 2013a; Vasudevan 2017a).



[76] Constructive dialogue?

In reality, people who occupy buildings are very often ‘usual’. They are A-level students, 9-to-5 professionals, skilful craftsmen, architects and artists. There are grandparents, mothers and fathers living alongside singles. The common trait is that they are ready to dedicate their efforts to their new homes and to the spontaneous community they sooner or later form. Internet is full of tips and support materials for squatters; most of them concern everyday practical issues – how to maintain properties or establish a working co-habitation model, because these questions naturally prevail over any political concern. (Henning 2013; Advisory Service for Squatters)



[77] Consensus?

Perhaps, a few steps made by cities and squatters towards each other can result in a compromise advantageous for both sides. The positive aspects of squatting, such as repair and maintenance of abandoned properties, lower quality demands, creative space transformation and constant entrepreneurial force, can be effectively exploited by cities. The latter only need to find a flexible and legal collaboration model. Further steps would include: applying this model to city property (or developing tax deduction mechanisms for property owners), finding some

medium of exchange (e.g. hours spent on house repair or social work), and a thorough estimation of short-term and long-term benefits. Finnish approach (below) proves that such collaboration can bring great results.

Even wild forms of squatting are able to produce positive impact on cities. The best-known example is the Freetown Christiania in Copenhagen, which developed into a national landmark. Although it by all means states its independence from the city, indirectly it benefits its economy through e.g. attracting tourists, who call it a must-see, or through providing low-cost cultural venues when everything is so expensive.

In Finland

Squatting movement is relatively weak in Finland (Van Deth 2005), but often appears on political basis and hence faces strong opposition from the authorities. Deprivation-based squatting is rare due to the generous social system (that protects citizens from homelessness) and strong social policies directed to the occurring problems. Consequently, at the moment, Finnish squatting is more an ideological protest (or request?) rather than a strong housing necessity.

Squatting as an alternative housing strategy, Entrepreneurial squatting, and Conservational squatting in Finland aim at “*living culture without discrimination, capitalism or inequality*” (Squat Kumma). The squatters are relatively young and mainly oriented at creating free spaces for socialising or entrepreneurship among youth with desired freedom of expression. Among the squats mentioned in press are: Kumma (Malminkartano, Helsinki), Elimäki (aka E15), Mummola (evicted in 2015), Töölönkatu 51B (evicted in 2003), Hanhikivi Cape and Venetsia (evicted in 2015). Notably, they all appeared in Helsinki region, which proves the capital to be the centre of social activity, on the one hand, and to lack affordable housing, on the other.

In terms of homelessness, Finland continuously sets an example for the rest of Europe (Pittini et al. 2015; Pittini et al. 2017; Kaakinen 2016). The country has been showing a steady decrease in the number of homeless in the last decades, when it was rising rapidly in all other European countries (Homelessness in 2016). Finnish programme against homelessness based on Housing First principles became a national policy (Y-Säätiö). The readiness, with which it is implemented, brings impressive results and significantly decreases need for squatting.

Furthermore, Finland shows a few interesting steps towards a promising transformation of squatting ideas into something legally acceptable and socially positive. For instance, projects by Oman Muotoinen Koti mentioned earlier in Home Sharing section can be viewed as an adjustment of the squatting idea (especially Vartiosaari Seasonal Living). Yet, Oranssi initiative shows, in my opinion, the most farsighted approach; thus, I thoroughly view it below.



[78] Christiania is a prominent example of complicated yet mutually beneficial relationship between city and squatters

REFERENCE PROJECT:

AO. Oranssi RY and Oranssi Asunnot OY [‘Oranssi Association’ and ‘Oranssi Apartments Ltd.’] (Helsinki region) – includes 11 houses/ 63 flats/ around 120 residents and a cultural centre.

Oranssi began with youth squatting in 1980s. It sought homes for young people and some space, where they could enjoy cultural events for free. Notably, from the very beginning, it stated political neutrality and aimed at collaboration with the city. “*The squats usually didn’t hold for long, but they allowed the activists to reach a position where negotiating with the local authorities was possible*” (Oranssi.net; Peipinen 2012). The latter bore its fruit – the first 3 houses were rented from the city. The further growth of the initiative required foundation of Oranssi Asunnot OY – to operate the new communities²⁰.

Today, Oranssi owns most of its houses. The project includes several communities in Helsinki region and a centrally located cultural centre for youth. Residents share responsibilities on all levels. Not only do they make decisions, but also actively participate in the refurbishment (alongside paid workers) and adjust their future homes to their liking. Slightly lower quality standards and a DIY approach to work help decrease cost and keep rents low.



[79] Responsibility...

Community life is ruled by consensus; decisions are made at common meetings and concern all aspects of life - from technical tasks to choosing new members. To be chosen, the latter must be below 25, have an acute need for accommodation and a low income. Although residents can stay as long as they wish, families with kids usually leave. That creates a constant turnover of members and keeps communities younger, as new dwellers arrive.



[80] ...and team work!

Just as well as chores, cultural events are also members’ responsibility. That makes the content actual for young audience and guarantees respect to the work done. Nevertheless, all ages are welcomed to the cultural centre, as long as they obey simple rules: no alcohol, no drugs, no politics, no religion. Then, people can meet and organise events themselves, using necessary equipment and a little help with practical issues. This philosophy makes Oranssi’s cultural centre a truly democratic and inclusive venue for self-organised youth activities.

Despite the money from occasional club lease and special events, Oranssi Ry remains a publicly funded organisation. The cultural centre is mainly financed by the city of Helsinki, while renovation work is often sponsored by state departments and state-owned organisations. Oranssi Asunnot OY exists on the basis of rents, loans and grants. “*During more than 25 years, Oranssi has transformed from an active social movement to a well-established non-profit organization that works in a close and mutually beneficial partnership with the city*” (Oranssi.net; Peipinen 2012).

NB! The concept, indeed, has its value to the city, as it is based on conversion of old wooden houses into affordable dwellings for young people. In my opinion, this scheme could be easily adapted in many other cities all over the world, as it saves empty city properties from decay and simultaneously fills gaps in housing

20 I see that moment as the turning point from squatting to legitimate operation.

provision. Obviously, other categories of dwellers could be considered for similar initiatives with necessary adjustments (e.g. older people in a difficult housing situation or refugees). Last, but not least, it introduces people to practical matters based on trust, responsibility and team work; in other words, it converts people into good citizens.

Oranssi's example also demonstrates a few interesting patterns.

1. Squatting can peacefully exist without political underlay.
2. When guided and supported by community, young people can become a (well-organised) creative power helping themselves and society.
3. The natural turnover of tenants demonstrated here gives hope for small individual dwellings in general, although the latter are often viewed as a high risk for potential slums (see 4.6 - COMPACT LIVING). Here, though, it must be noted that Finnish young people do have rather good perspectives in terms of housing, which might be not the case elsewhere.

SQUATTING – SUMMARY

WHAT PEOPLE WANT: have (emergency) shelter; save money (on rent or bills); find an appropriate (by price/size/conditions) place for their activity (DIY, artists' workshops, music stages, shops etc.); have free socialising (without buying a meal or a ticket); feel independent (no rules by housing companies or landlords); feel active (community life, DIY); feel heard/noticed by authorities (especially Political and Conservational types).

WHAT CAUSES THIS TREND: lack of affordable housing; lack of social housing; too uniform solutions on the market; developer's market (high demand, big market players are not interested in building for special requirements); rise in active population – people better realise their power; decrease in income level (economic crisis and high unemployment rates); immigration crisis; inflexibility of authorities; housing gentrification with no respect to low-income citizens; bad monitoring of unused properties.

(POTENTIAL) FLAWS (of already 'civilised' squatting): If authorities do not support and monitor such programmes properly, there will be major setbacks and natural movement towards original squatting with all its connotations. Too much pressure and control will produce the same effect, since many squatters need freedom more than shelter. Some owners would refuse any attempt to legalise squats in their abandoned properties and their opinion should be respected with consequent alternative measures. A life-span programme for such 'civilised' squat is crucial, otherwise its demolition (due to physical conditions) might cause more disappointment by squatters than in case of illegal, 'uncivilised' squatting.

WHAT IS MISSING: a constructive dialogue between squats and authorities; mechanisms for legalisation of squats without sacrificing common housing standards (e.g. introduction of a special category of housing with lowered standards, on which residents agree and do not require improvements from authorities); mechanisms for resolving property questions (city owned property/private owned property); prevention mechanisms (e.g. fines or other measures on unused property, as well as softer measures against squatters in long-neglected properties); possibility to request some property for squatting (as a monitoring measure for

healthier cityscape); most importantly - a farsighted programme of policies to help squatters move forward in life (job placement, housing offers, help with documents etc.).

WHAT ARCHITECTS CAN: emphasise the role of conservational squatting; promote the great potential of legal squatting ideas; come up with programmes; in cooperation with authorities: provide technical expertise (guides for squatters, advice on individual cases, ideas for layouts and materials).

Indeed, not once, in times of severe housing shortage, architects helped cities use squatting as a social sustainability tool. Wars, economic and natural disasters left many homeless and architects assisted people in establishing their new homes – by generating ideas and providing technical expertise (Jenkins, Forsyth 2009). A good example would be Community Technical Aid Centres (CTAC) established in UK in 1970s. Then, mature architects and students worked with citizens (and their cooperations) as consultants and planning assistants to find best solutions for alternative developments based on participatory approach.

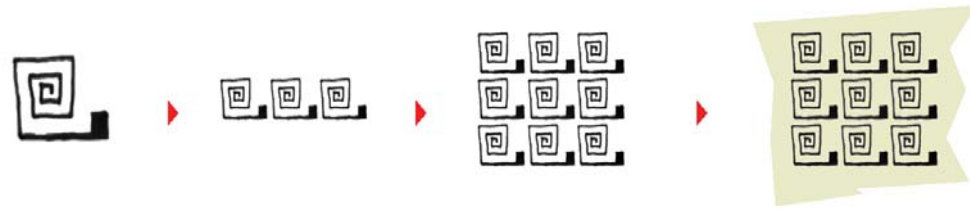
While assistance by RIBA (Royal Institute of British Architects) was mainly concerned with architectural expertise, CTAC involved all professionals related to community building and provided complex help including: *"planning, landscaping, engineering, surveying, ecology, environmental education, financial planning, management, administration and graphics"* (Spatial Agency). In other words, they brought together all instruments that allow community's sustainable existence. Due to consequent popularity of such services, the newly created Association of Community Technical Aid Centres (ACTAC) was considered by some as RIBA's competitor.

Importantly, architecture students and their professors played a crucial role in this process. A similar mutually beneficial cooperation between cities and universities could today become a conventional option for internship programmes and even secure some funding, in addition to traditional volunteering basis. Close involvement into real cases and cooperation with customers will be advantageous for students in their future professional life. Unlike some office experience, this type of 'field' activity gives more meaning to the profession and a sense of satisfaction due to its visibly positive social impact.

Such programmes powered by students and professors from different fields could constitute the missing link between cities and squatters. The initiative groups of citizens could rely on their help for preliminary research necessary to present their ideas to city authorities. As well, could students be involved into monitoring programmes to identify potential properties suitable for legalised forms of squatting. To encourage their interest, design agenda could include student housing and cultural venues for youth. Thus, participatory architecture and acupuncture approach multiplied by social vector and academic expertise can turn squatting into a legitimate tool of socially sustainable urban reuse with such outcomes as decrease in housing shortage and healthy versatile cityscape.

4.6 COMPACT LIVING

(aka Urban Minimalist Living, Simple Living, Minimalism, etc.)



[81 - a/b] Minimalism: excess (m²) ≠ success

The philosophy of minimalism gains popularity among young citizens worldwide, because it perfectly fits their neo-nomadic lifestyle. Urban compact living constitutes a big part of it and is architecturally embodied in micro-apartments. Thus, I focus on the latter, physical, category and leave philosophical discussions beyond my current research.

Internationally

According to some authors (Bay, Lehmann 2017), the micro-flat trend was inspired by the book 'The Not So Big House' published in 1998 (Susanka 1998). I would disagree with that for two reasons. Firstly, this urban trend is not completely new, rather a new circle of historical spiral²¹. Secondly, I believe that the micro-apartment type naturally evolved in big cities from shared flats – pressed between extreme demand and high profitability – rather than became fashionable after one publication.

Cities with boosting economic life have been attracting job seekers ever since, with consequent rise in price and fall in quality per sq.m. The usual promotion path of an incomer would start with a bed place in a shared room, proceed to a private room (whose quality would grow alongside income) and eventually stop unable to reach such luxury as a proper private flat. In such case, any autonomous private accommodation would be an asset.



[82] One of rental "studios" in London

For instance, today's London is full of rented 'studios', where entrance door hits the bed. Lying on this very bed the inhabitant can literally reach all 4 walls, wash hands in the sink or switch on the electric kettle (Is This the Smallest Flat? 2012; London Rental Opportunity). The same happens in Rome (Day 2012), Paris (Macherez 2015; Paristay.com) and other capitals.

A rise in demand (and the following offer) on compact spaces is a litmus reaction to social changes and challenges. Micro-apartments gain popularity, because they answer questions that XXI century offers to society, hence they constitute one more 'alternative housing tool' that supports social sustainability – by giving people a chance to stay in a big city and fight for better future (study, job, inexpensive business trips etc.).



[83] A more spacious offer (same city)

²¹ Tiny houses and other self-contained living spaces are well-known in history, but the closest predecessors of micro-flats came in 19th century (Adler 2015).

The present wave of discussion about micros gained momentum in the first half of 2010s. Obviously, the idea produced both positive and negative opinions. The former included excitement about opportunities for neo-nomads (e.g. for business people and freelancers), the positive impact of minimalistic approach with its clear message against consumerism in western society (Hill 2013), the evident call for creativity triggered by challenges, and, obviously, a hope to finally meet market demands. This excitement was opposed (Goodyear 2013) by reasoning about possible negative impact on physical state and mental health of inhabitants (Urist 2013), historical retrospectives that justified and defended existing housing codes (Badger 2013a), and references to slums worldwide (Yanofsky 2013).

These debates reached some peak in 2015, on Carmel Place's²² accomplishment. The project by nArchitects was chosen in a competition arranged by the former mayor of New York in attempt to improve the local situation with affordable housing. The 9-storey prefabricated modular building was erected in just 4 weeks and featured 22 affordable micro-units (out of 55 overall); 17 flats were fully furnished and equipped with especially designed built-in items. (Carmel Place – Building; Kaysen 2015)



[84] Carmel Place - interior

Apparently, micro-apartments raise questions; for example, a question of minimal area, which varies worldwide, but is always below standards. A real estate expert, Michelle Muniz, in her article 'Micro-Units: Fad or Future?', defined micros as "apartments between 200-400 square feet or 18.6-37.2 square meters" (Muniz 2016), which refers to New York's reality with a minimum of 400 sq. ft (37.2sq.m) and to Carmel Place that had to overcome it with a special permit. In Finland, for instance, the minimum is 20sq.m (G1 - Housing Design 2004), hence many apartments of Carmel Place would be considered 'normal'.



[85] Carmel Place - exterior

How far can it go? What reasons should justify flat limits (norms, traditions, habits or average body measurements of its inhabitants)? Should these norms be internationalised (as a response to the increasing turnover of people around the world)? What is perfectly workable in some Asian country might well prove troublesome in the Western reality, although it looks appealing in a journal. Other questions and concerns include: a must for unique built-in furniture and equipment (replacement problems), very limited storage space (slum-looking consequences), zero accessibility, potential mental problems, non-ergonomic design (extreme stairs, unsafe loft spaces etc.), lack of common space for daily use²³, micros' negative impact on regulations, no life-span programme for such developments.

The latter question, in my belief, is especially important and should receive more attention. Despite all their imperfections, micros managed to move from connotations of slums towards modern minimalist hi-tech lifestyle associated with professionals in demand. These flats are well-marketed and gain popularity among tenants, while investors and developers enjoy their high profitability.



[86] Small spaces tend to turn into big problems

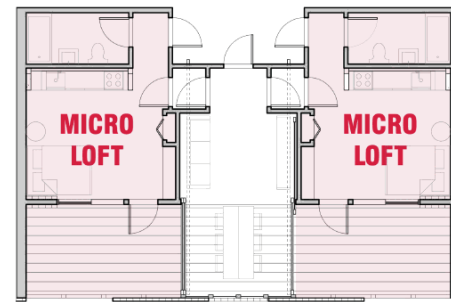
²² Formerly known as My Micro NY.

²³ First and last floors are not a solution in a big block of flats (Badger 2013b).

Praises in financial and property journals, as well as interior design suggestions visibly outnumber publications concerning architectural and urbanistic qualities of the trend. That shows current priorities to be dictated by demand – a situation that requires some discretion. Micros might save the overall socio-economic balance in present times, but they can ruin our urban tomorrow just as well. When built according to investors' appetites, blocks of micros can turn into a nightmare in a decade or two.

Such organisations as London's Charity Shelter already claim *"that allowing some developers to circumvent existing space standards and build smaller homes could result in a decline in quality"* (Curry 2017). They warn against *"rabbit hutches"* and point that *"a reduction in size also does not necessarily result in a decrease in rent, because land prices could increase due to building more homes in a smaller space"* (Curry 2017). I would also add extra-cost on custom-made (hence irreplaceable) furniture and electric appliances, more mechanical damage due to lack of space, and maintenance problems that appear within time.

How long are people supposed to live in micros? Unlimited rental terms will lead to slums in city centres in just a couple of decades, if the blocks are not designed with flexibility in mind. Flexibility here can include layouts (that allow unification of some micro-flats into family units or conversion into cheap offices when the trend goes down), regulation by authorities (strict definition of a 'micro flat' incl. its status, rental conditions, pairing with social housing programmes etc.) or simply enough common space added between flats on each floor (but that would be a major area loss for developers) (Brook 2016).



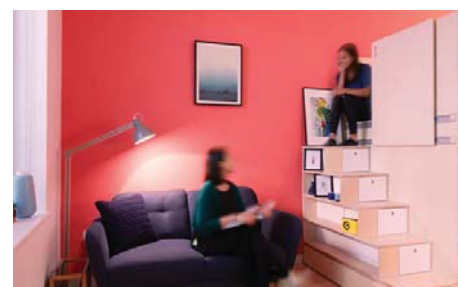
[87] Common space between units: additional air volume; storage space; trigger for social contacts between residents; future flexibility (e.g. a family flat or a "micro community" flat for private renting)

Most often, city authorities consider micro-apartments a time-limited solution and allow micro blocks only as experiments built on special building permits. If the loosened norms generate a sprawl of mono-blocks, in the future it might do more harm than good. I base this concern on my childhood experience; tiny flats built in Leningrad (USSR) as a temporary measure – to move people from communal flats to their own – have already housed many generations, and will see many more. Soviet jokes about new flats that were *"nice but too narrow in the hips"* are still actual there and I would pity hearing them in modern Europe.

At the same time, reality shows that despite their newly obtained freedom, micros sprawl only where they really work for people – one more example of self-adjustment mechanism that keeps sustainability balanced. For instance, in Boston, despite the loosened regulations, micro-apartments activity did not reach expected scale, because developers set prices too far from affordable housing range, which is expected for micros (Acitelli 2016). Hence local micro-blocks shifted towards an apartment hotel type.



[88] Suitable for young, fit, brave...



[89] ... and 'not so big' dwellers

In my opinion, micro-apartments should not challenge existing norms; instead, they could receive some special status closely connected with affordable and tenancy-limited housing and be cautiously integrated into mixed-use developments alongside all other types. However, many would disagree and suggest that cities should *"review their codes"* and *"eliminate unnecessary regulatory barriers to small units"* (Gabbe 2015).

Since I believe that new monoblocks of micro-apartments should raise the biggest concern, I leave small renovation projects outside my list of references to focus on possible urban impact from micro-apartments when the latter are designed from scratch and packed in big numbers.

In Finland

Furnished non-serviced apartments available for long-term rent are *"not so common in Finland"* (Expat Finland). More common options include either unfurnished long-term rental flats or fully furnished, well-equipped serviced apartments. Most of the latter belong to apartment hotels. These developments might lack reception desks and restaurants, but they often feature a good location and additional services, hence their rooms cost more per sq.m than in long-term rental flats (comparable quality). Guests can stay from one day to months and even years. Consequently, in case of housing shortage, apartment hotels are a solution but not for the poorest home-seekers.

The first Finnish rental block fully constituted by non-serviced micro-apartments (I would call it 'Finnish Carmel Place') was recently introduced by SATO Group – one of Finland's leading rental housing providers. Just finished, SATO StudioKoti²⁴, features *"Finland's first mini-homes"*. Notably, an extensive negotiation process took place to make this project possible and resulted in *"a special permit from Vantaa city officials to construct the 15.5 square metre units, since national regulations currently set the minimum size of a home at 20 square metres"*. Despite these administrative obstacles, the developer is very optimistic to continue with the next Sato building in Meri-Rastila and, possibly, in Espoo. (Finland's First Mini-Homes 2016)

I suspect that bedroom lofts were not included in the area calculations and that their inclusion would increase the overall area to the minimal 20sq.m. Nevertheless, this area would still stay below the average Finnish studio²⁵ or the floor area per person in rented dwellings²⁶. At the same time, 15.5sq.m look acceptable, when compared to an apartment hotel room rented for a long period. The latter has all the features of a micro-flat and is, in fact, as autonomous. For instance, Forenom offers rooms in its apartment hotels ranging from 10sq.m in size (Forenom.com; Expat Finland).

In fact, the idea of micro-apartments could exist in the form of apartment hotels long before it entered the housing market. If so, I would expect the same developers and investors who successfully launch apartment hotels to start micro-apartment developments. Moreover, they would bring their appetites – a certain ratio of interest per square meter – figures that are far from affordable housing. That would create an additional risk for the micro-apartment trend. Instead of fighting shortage of low-cost housing options, market players might use 'micro-apartment' as a marketing trick for building less and charging more, especially if authorities make some major changes in the common norms.



[90] Nakagin Capsule Tower – a famous representative of the previous 'micro' generation – clearly demonstrates all the flaws of the trend

24 SATO StudioHome – see below in case-studies.

25 34 sq.m for a one-room unit in 2008 (Stat.fi 2008).

26 32 sq.m in 2016 (Stat.fi 2016).

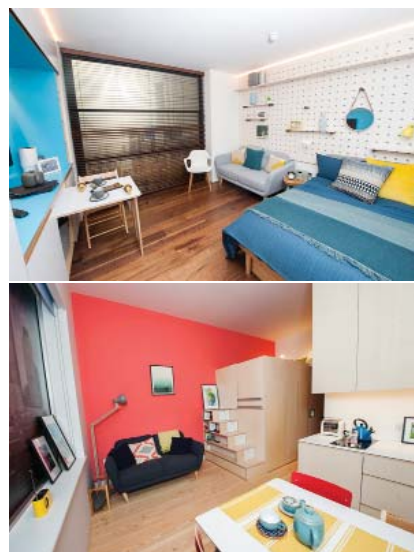
REFERENCE PROJECTS:

AP. Town Flats (London; to be built; development by U+I; design by Manser Practice and Ab Rogers) – a number of blocks of rental micro-apartments (19-24sq.m – against the minimum of 37 sq.m recommended by the Greater London Authority) are planned in the centre of London (zone 1 or 2) to boost its economic activity by welcoming young professionals, who are nowadays priced out of that area. Notably, the micro blocks will include some communal facilities like offices, which should help tenants in their enterprises. Developer hopes to collaborate with public sector in order to offer ideas for the unused land – with mutual benefit and for better social impact. At least 50% of the new micro-flats would be eligible to the London Living Rent scheme that allows Londoners pay rent and simultaneously save to buy their own dwelling. To rent such apartment, a person should make below a certain income threshold and agree on rent only, without any possibility to buy or sell their dwelling for income. (Gillett 2017)

AQ. Pocket (London, UK) – blocks of new 2-room flats starting from 38sq.m. and advertised as micros – an example of marketing mechanism exploiting a rising trend. The official site offers “affordable compact homes for first time buyers”, which are “at least 20% cheaper than the surrounding market rate”. In fact, the buildings have rich brick facades with green walls; their flats with award-winning design feature custom furniture and are offered for sale; the minimal area of flats fits the norms and the buyer's income should be only below £90k (e.g. Town Flats sets it according to the London Living Rent scheme at £30k-£60k). These facts suggest that the main target of the Pocket developer could be that £25m aid from the Mayor of London. The restrictions put on tenants (e.g. letting or selling the flat only through the company and at 20% discount compared to the market) also sound more beneficial for the developer than for people. (Pocket Living)

AR. Linked Living (Hamburg; Vienna; also planned in Berlin; by CORESTATE Capital Group) – micro-apartment blocks where ‘student’ apartments (Vienna - from 19 sq.m, Hamburg - from 24sq.m) are mixed with ‘business’ apartments (Vienna – from 21sq.m, Hamburg - from 24sq.m). Blocks feature a substantial choice of common facilities (e.g. co-working spaces, TV and community lounges, fitness, study or gaming zones, restaurants, laundry rooms) and services on choice (cleaning and laundry change, storage rooms, car parks, bike shelters).

NB! Linked Living blocks, in my opinion, show a number of interesting features. First of all, a combination of micros with conventional apartments enhances sustainability of the project. So does a mix of students (who need jobs) with business people (who need



[91 - a/b]



[92 - a/b]



[93 - a/b]

labour). A lot of well-organised and equipped common spaces encourage interaction and accidental contact. In addition, they have the categorisation into ‘student’ and ‘business’ division by age and occupation of tenants, which can be good to prevent life-long tenants. Apparently, the investor plans one more Linked Living block in Berlin and another ‘micro’ development in Vienna that “will feature 131 fully furnished micro apartments and offer extensive services” (Corestate Capital Holding S.A. 2017; Corestate Capital Holding S.A. 2018). That proves the current strategy on micros successful. (Linked-Living.com)

AS. Rotenturmstraße 5-9 (Vienna; 32-39sq.m; Komm. Rat Prof. Hans P. Wertitsch Immobilien- und Vermögenstreuhand GmbH; design by LIEGLER TAKEH ARCHITEKTEN) – 8 rental ‘micro’-apartments (32-39sq.m each, fully furnished and equipped). Notably, these flats became a part of a big mixed-use block after its partial renovation. (Rotenturm Strasse)

NB! I find this solution much ‘healthier’ than mono-blocks of micros for its minimal risk for future slums. Central location, a handful of micro-flats, other businesses in the same building and around – all factors make this well-considered ‘injection’ of micros a good specimen. However, this accurate path through gradual diversification of housing stock seems too slow compared to the scale of housing problems today; thus, mono-blocks of micros will inevitably occur. In that case, much more focus should be kept on quality of layouts and maximum diversity; otherwise, those buildings will soon transform from a solution into another urban problem.

AT. 187-191 Parramatta Road, Camperdown (Sydney; by non-profit organisation Evolve Housing; 2013) - a 64-unit block of long-term rental micro-apartments (12-25 sq.m, excluding kitchens and bathrooms) with a communal kitchen-dining area. It includes units designed for people with disability (still about 20sq.m). Micros are fully furnished and equipped. The block was officially classified as ‘a New Age boarding house offering affordable housing’ to overcome the minimum area requirements of 35 sq.m for studios. Developer observes that more than 2/3 of the tenants are 20-40 years old. Interestingly, “it’s less about age and more about household type”, hence many tenants have consistently lived there since 2013 (Corderoy 2016).

NB! These observations might reflect that reality of micros differs from their marketing ideals, namely, that they are used as a permanent housing solution by low-incomers regardless age and occupation, while the initial target market was commuters and graduates. (McKee 2016; Stein, Champness 2017)



[93c]



[94 - a/b/c]



[95 -a/b/c]

AU. Songpa Micro-Housing (Seul; by SsD; 2014) – a generously awarded block of 14 micro-flats (app. 11.1sq.m each) that can be paired into bigger units (22.2sq.m); has common spaces in the basement, on the ground and second floor; a lot of additional terraces, balconies and wide corridors between units that should substitute for lacking private space.

NB! Several observations on this project: 1) an average size of inhabitant in South Korea differs from that in Europe; 2) the project is rather small - 4 floors and only 14 units overall - not an anthill by its scale; 3) it is very generous in common space and, by its layout, resembles more a co-housing project than a micro-flat block. (Songpa Micro-Housing)

AV. Star Studios (Hong Kong; developed by Swire Properties; 2016) – 2 towers (16 and 23 floors) with 120 units overall (from 13.2sq.m); include a 'private clubhouse' with an outdoor terrace, a gym, and a lounge zone. More than half of the flats are 19.1 - 22.3 sq.m, while the average is about 22.3sq.m. (Hong Kong's Swire 2016)

AW. SATO StudioKoti (Martinlaakso, Helsinki; 2017) – a newly built 6-storey studio-apartment complex with 68 units. Units are app. 15.5sq.m by area and app. 4m by height. Apartments have 2 levels. A small living-dining room with kitchenette, built-in wardrobe, and the bathroom are placed on the first level; a loft bedroom – on the second. Functional design of compact apartment is supplemented with a private balcony and spacious communal zones in the block (big common lounge area on the ground floor, terrace, sauna on the top floor, laundry room). (Sato.fi)

AX. Tikku (Keskuskatu, Helsinki) – installation designed by Marco Casagrande for Helsinki Design Week-2017. A mini apartment house built of CLT over one night to occupy size of a one parking lot. This installation meant to show how compact our living can be in the future. (Micro-Size Apartment Building 2017; HDW HOP 2017)

NB! Many people today permanently live in RVs, hence occupy area of one parking lot. Perhaps, the next step will be multistorey RVs. They would combine minimalist living with freedom of movement – the two basic needs of urban neo-nomads.



[96 - a/b]



[97]



[98 - a/b]



[99]

COMPACT LIVING – SUMMARY

WHAT PEOPLE WANT: have an autonomous dwelling; save money on rent and/or commuting; find an appropriate (by price/conditions) place for their activity (studies, work, business trip) with condensed opportunities (usually city centre); have fully furnished and equipped accommodation cheaper than hotels; easily regulate rental period (and avoid much paperwork); have all-inclusive rent; have additional services by choice.

WHAT CAUSES THIS TREND: lack of affordable housing; lack of social housing; property prices skyrocketing in some areas; decrease in income level (economic crisis and high unemployment rates, especially among young generations); later family forming; globalisation of job market; gentrification of city centres; existing 'micro'-apartments on the rental market form a habit and enter the norm of living; high profit from 'micros' makes developers promote changes in norms.

(POTENTIAL) FLAWS: uncontrolled growth of monofunctional 'micro'-blocks will lead to condensed low-income areas, most likely in the city centres, with relevant consequences; private ownership for personal use (not for rent) will proclaim the micro-flat an acceptable housing unit, which will gradually decrease life quality standards region-wise; private ownership will make regular refurbishment and quality check impossible and result in slums; long occupation periods will increase mental problems and raise disappointment in people who are stuck in this temporary dwelling for ages due to their economic situation; absence of norms for micros will result in quality decrease with price increase; ageing in place or having children in micros will be a social disaster, unless special measures are introduced for these cases (e.g. help with buying a proper flat or finding a place in a care facility); absence of a flexible future reuse plan will lead to demolition of 'micro'-blocks and increase the cost; if micros are not legitimately bound to certain social programmes with due obligations from authorities (e.g. proportion of affordable or social flats), developers will inevitably increase prices within time to reach market levels; when the economic situation improves, incomes grow, and fashion turns back to multi-room apartments, outdated micro-flats will turn into an urban problem, as their renovation might well be economically inefficient – just like it happened to Nakagin Capsule Tower by Kisho Kurokawa (1972) – a prominent 'micro' project from the past (Glancey 2016).

WHAT IS MISSING: deep scientific research on the micro-apartment as a housing unit based on the past projects with objective conclusions about positive and negative factors (deeper than ULI report (Urban Land Institute 2014)); strict definition with a following descriptive list of features (e.g. minimal and maximal area, a list of furniture and equipment compulsory for a 'micro'); consequent constraints on implementation (e.g. ratio 'communal/private' area, prohibited private ownership and sub-rent, limited rental periods, minimal frequency of refurbishment, interior materials, air volume etc.); regulation of the phenomenon on urban scale (limits for mono-blocks, ratio for mixed-use developments, exemplary adaptation programmes etc.); ideally, a few experimental developments should be monitored for a long time.

WHAT ARCHITECTS CAN: create optimal layout when commissioned; design replaceable inexpensive furniture made of natural materials (for mental and physical health of residents); study the phenomenon closely; raise voice in the discussion and balance marketing slogans with research data; cooperate with authorities and work out some legal framework for micro-apartments that prevents major urban problems in the future.

Like in many other cases, architects and urban planners play a twofold role in the COMPACT LIVING trend. On the one hand, they are involved in the process among other major players (developers and city authorities). On the other hand, planning specialists are expected to provide some unbiased criticism of this phenomenon.

Although society habitually addresses design issues to architects, it is correct only partially. In fact, developers often press architecture offices with economic reasons and force rather inhumane solutions – to squeeze maximum profit out of the plot. In this situation, architects have no choice but to use their creative abilities to find legitimate ways for justifying such solutions in front of authorities in order to obtain a building permit. Star Studios and Parramatta Road projects demonstrate outcomes of such process. Their tiny corridor-like flats come from the narrow stripes that were cut to have more flats per floor. The same scheme applies to Rotenturmstraße 5-9 renovation project, which shows more spacious yet narrow layout. It definitely limits architects' design power and worsens the quality of life for future inhabitants (e.g. natural light does not reach the depth of such flats and the only source of it makes any zone separators impossible).

Height of ceilings, especially good lighting (incl. both day light and artificial light criteria), optimal air volume and natural interior materials shall be the first quality indicators for micro-flats. Thus, they have to be developed into norms for 'micros' (segregated as a special status housing category) in exchange for economic benefits gained by developers. Such measures would restrict developers' economy-driven demands and defend architects from their pressure. Then, architects would use their creativity to suggest optimal layouts based on positive dweller's experience, which is crucial in case of compact spaces used for a long-term stay. Such reference projects as Town Flats, Linked Living and SATO StudioKoti already demonstrate a more responsible approach to space. Their layouts offer healthier proportions for the living zone – close to a square.

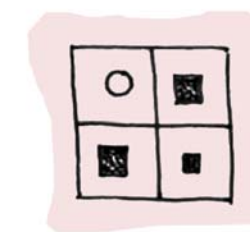
Notably, Pocket reference falls off the comparison list, since its layout has separated bedrooms, which proves its 'micro' title to be a marketing trick. That suggests that the protected status of the 'micro' included into regulations should define such apartments as one living volume, where only utility block is allowed to be fully separated (which is logical, as micro-apartments are studios by nature). Otherwise, the term 'micro' will be continuously manipulated by developers to benefit from related social funding and dispensations by the city.

The further improvement that architects can bring to compact living is some standard based on conventional furniture. Obviously, the very concept of 'micros' implies optimised furniture solutions that (together with unusually small area) distinguish micro-flats from conventional studios. However, undefined future of micro-apartments calls for possibilities of replacement, thus minimal measurements should be introduced. For instance, a standard single/double bed or a sofa could become a module for living zones. That could help inhabitants when their built-in folding bed is broken. Another idea can be a simple set of standard furniture that should hypothetically fit in such flats in case of refurbishment.

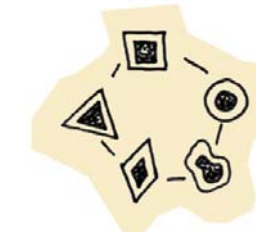
However, no design measure suggested by architects now will help when, in some years, all built-in cupboards start to fall apart and especially designed electrical appliances do not work any more. This future shall be discussed nowadays, which refers to the critical role of architects and urban planners, who are able to fuel the discussion with independent research data. The latter could warn city authorities against

'micro' monoblocks with no clear terms of residency and transparent refurbishment programme for future. Among suggested policy-related preventive measures could be: only rental terms limited to some years, age limitations for tenants (due to zero-accessibility), possible limitation to specialised housing (e.g. student housing or affordable flats for singles), city zoning that restricts 'micro' developments to locations with highest demand for them (such as business city centre, university-associated areas, tourist attractions).

In case of productive cooperation established between cities, architects, urban planners, and developers, micro-flats can become a socially sustainable tool against housing shortage. They can fulfil the growing demand for temporary accommodation generated by globalisation and consequent mobility, thus help such categories as young professionals, students, tourists or asylum seekers. Resulting satisfaction, growing prosperity and brighter outlook on life among residents (based on multiplied opportunities thanks to this housing option) will solve many social problems and support social sustainability of the city.



HOME SHARING



CO-HOUSING



MULTIGENERATIONAL LIVING



AGEING IN PLACE



SQUATTING



COMPACT LIVING

[100] Will these 'shades' diversify the standard architectural 'palette'?

In the previous chapter, I outlined 6 well-established alternative housing trends and identified the key factors that form or influence them. That responds to the objectives that I set for myself at the beginning of this thesis, namely: "to identify potential alternative housing trends, analyse their roots and estimate their chances to join common practices of tomorrow" (see part 1.1 Purpose of my research). To completely fulfil my research goals, in this chapter, I provide analysis of the trends based on the summaries and the reference projects presented earlier for each practice. Thus, here I answer the following questions.

- What is the relation of the studied trends to city sustainability balance?
- What role(s) do they play in social sustainability of urban settlements?
- What internal and external forces form these 6 exemplary alternative trends?
- What progress have they made towards conventional development practices so far and what key factors influence them on the way?
- What role do architects play in this process?
- And, finally, how is Finnish alternative housing positioned in the international context?

5.1 Internal and external forces

In this part, I analyse features collected earlier under headings 'What People Want' and 'What Causes This Trend'. Since the intermediate summaries presented relevant factors with no segregation, some conventional categorisation and analysis were necessary to clarify the origin of each issue.

The resulting groups of internal and external factors of various nature (below) illustrate connections between alternative trends, citizens' needs, and ongoing societal changes. It shows what excessive forces find their outcome in alternative housing. In other words, this analysis shows that alternative trends work as a litmus test indicating some shift in sustainability balance of a city.

Furthermore, for the first time, this chapter segregates social features associated with alternative practices and organises them into specified categories. Importantly, the categorisation does not lead to detachment. Conversely, my further investigation refers to the interrelations between all categories, including social. This tactic stems from my research goal to study alternative housing phenomenon fully – acknowledging all its concomitant aspects – in order to respect the synergetic nature of urban sustainability. The results demonstrate what aspects of urban sustainability (in addition to social) are connected to alternative housing, what place social sustainability takes among the origins of alternative housing, what role alternative housing plays in urban social sustainability and, eventually, how alternative practices can be worked into an effective urban social sustainability tool.

The preliminary analysis revealed some overlapping between trends, as some features appear in more than one trend. Furthermore, certain features appear more often than others. To reflect that and to evaluate any possibility of comparison, I suggest the following 2 tables (Table 1 & 2). They gather key features and conditionally group them by categories, which clarify their distribution and illustrate all complicated relations between features at once. Table 1 analyses internal forces ('What People Want'); Table 2 does the same for external forces ('What Causes This Trend'). It is important to note that the earlier summaries and, consequently, the resulting tables are built upon critically characteristic features and do not reflect second or third circle of features that come as a side effect of one or the other alternative trend.

5.1.1 Internal forces

My analysis of internal forces ('What People Want') and their further division into conditional groups shows that the studied 6 alternative housing trends appear in response to the following demands: *Need for shelter, Economic needs, Social needs, and Special dwelling requirements*.

Table 1. Internal forces - WHAT PEOPLE WANT

Category	Feature	Housing trend					
		4.1	4.2	4.3	4.4	4.5	4.6
		HOME SHARING	CO-HOUSING	MULTIGENERATIONAL LIVING	AGEING IN PLACE	SQUATTING	COMPACT LIVING
Shelter	Have (emergency) shelter	+				+	
Economic needs	Save/earn money	+	+	+	+	+	+
	Have help/assistance at hand	+	+	+	+		
	Have free activities					+	
Social needs	Fight loneliness	+	+	+	+		
	Feel secure	+	+	+			
	Feel supported	+	+	+	+		
	Live among like-minded people		+			+	
	Have specific rules		+			+	
	Establish communality		+				
	Feel independent		+		+	+	+
	Feel active		+	+		+	
	Feel needed		+	+			
	Have fun		+		+	+	
	Feel heard/noticed by authorities					+	
Special dwelling requirements	Have regulated privacy	+	+	+			
	Easy tenancy	+					
	Have dwelling that ideally fits their needs and ideals		+	+	+	+	+
	Have an autonomous dwelling				+		+
	Live in an area/building with condensed opportunities						+
	Have fully furnished, equipped and sometimes serviced accommodation cheaper than hotels	+					+

The first notion that comes with the table is that **the categories are hardly comparable, as they have different logical 'weight'**. For instance, *Shelter* is represented by one feature, but indicates an acute need for accommodation among citizens. Consequently, the rapid growth of alternative trends that represent shelter needs (SQUATTING, HOME SHARING) signalsises about most amplitudinous changes or most difficult challenges that call for immediate measures on the city level. That is very different from *Special Dwelling Requirements* – a more various but less 'urgent' category, which indicates a creative search for more convenient housing options.

For the sake of conciseness, **I focus on social needs and refer to others only occasionally**, hence leave the rest of the table to reader's interest. Indeed, the 6 alternative housing practices studied above indicate and partially fulfil the following social phenomena in today's urban population: *loneliness; insecurity; lack of support; search for like-minded people* (i.e. lack of understanding by surrounding people); *wish to establish own rules; desire for communality; wish to feel independent/ active/ needed; crave for having fun in their own way; need to feel heard/ noticed by authorities*.

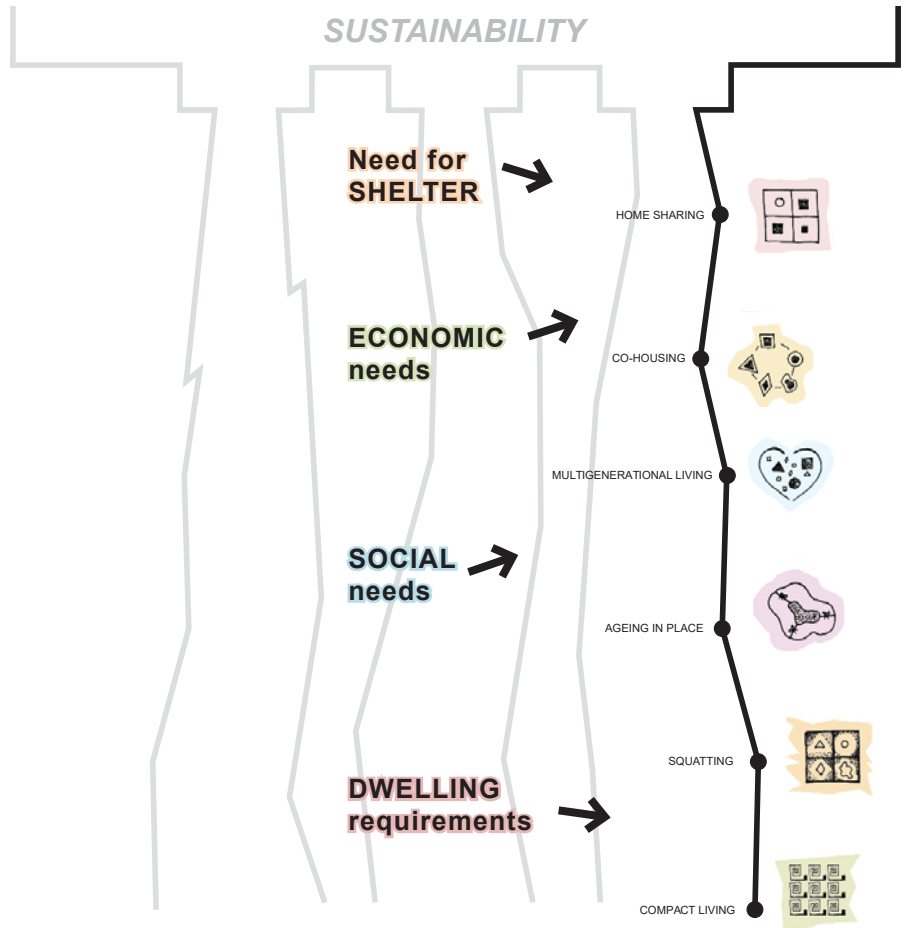
Loneliness and lack of neighbourly support are the most common social problems embodied into unconventional developments. They are indicated by **HOME SHARING, CO-HOUSING, MULTIGENERATIONAL LIVING**, and **AGEING IN PLACE**. However, the need for *neighbourly support* is partially justified by **economic**

needs, as the same trends feature *help/assistance at hand* as a compensatory measure for professional help due to income's drop. At the same time, *the need to feel heard/noticed by authorities finds least outcome in alternative housing*, as it is crucial *only* for **SQUATTING** communities.

By the variety of social features, **CO-HOUSING is by far the most socially-oriented trend among presented**. It answers to all the social problems mentioned in the table, except the politically-oriented *request for a dialogue with authorities*. **SQUATTING takes second place**, while *the third one is occupied by MULTIGENERATIONAL LIVING*. Notably, **CO-HOUSING and SQUATTING resemble each other in their positive social effect** against the following problems: *search for like-minded people; need to establish own rules; wish to feel independent and active; crave for having fun in their own way*. That indicates the communal origin of these trends and proves their social orientation, although *on different economic basis*.

Among other similarities, I would note the *closeness of HOME SHARING to MULTIGENERATIONAL LIVING* (judged by their social effect). They both help people *fight loneliness, feel secure and feel supported*. That hints at a possibility to develop one into the other. For instance, HOME SHARING could be used as a basis to create multigenerational households and systematically solve several social problems on city scale. Reference projects from 'Partnership-oriented model' of HOME SHARING prove that possible.

Interestingly, **COMPACT LIVING indicates only one social root**, namely the *desire for independence*, which makes this trend *the least socially-oriented in the table* (judged by the spectrum of social needs fulfilled). In fact, the internal forces that form this trend mostly belong the **Special dwelling requirements** category, which *reflects the spacial nature of this trend*.



|101| Internal forces that push housing towards new solutions to keep sustainability balanced

5.1.2 External forces

Table 2 (below) summarises the external forces and is based on the earlier summaries 'What Causes this Trend'. Thus, the 6 alternative practices studied in this thesis work stem from the following 5 categories of external factors: *Economic change, Social change, Building stock, State malfunction, and Complex*. It is noteworthy that the categories in the two tables visibly correlate showing some connection between economics-, social- and dwelling-related categories of internal and external forces. Furthermore, an acute need for shelter could be connected with state malfunction, since in welfare states, it is state's duty to make sure people's basic needs are satisfied. However, this is a mere connection, not a direct proportion, for internal forces have a more complex relation with external processes, meaning that one internal need can be born by several external changes that collided at a certain moment.

Table 2. External forces - WHAT CAUSES THIS TREND

Category	Feature	Housing trend					
		4.1	4.2	4.3	4.4	4.5	4.6
		HOME SHARING	CO-HOUSING	MULTIGENERATIONAL LIVING	AGEING IN PLACE	SQUATTING	COMPACT LIVING
Economic change	Decrease in income level	+	+	+	+	+	+
	Property prices skyrocketing in some areas	+				+	+
	Expensive professional care	+	+	+	+		
Social change	Later family formation	+		+			+
	Quickly ageing population	+	+	+	+		
	Globalisation of job market and consequent labour mobility	+	+	+			+
	Rise in active population		+	+		+	
	Longer active life for the elderly		+		+		
	Rise in nuclear families		+				
Building stock	Immigration crisis	+				+	
	Anonymity within conventional housing blocks	+	+	+	+		
	Too uniform solutions on the housing market		+	+		+	
State malfunction	Developer's market		+			+	+
	Lack of social housing	+				+	+
	Insecure parental leave			+			
	Lack of elderly homes	+		+	+		
	Inflexibility of authorities					+	
Complex	Black/grey rental markets						+
	Lack of affordable housing	+				+	+
	Gentrification of city centres	+					+
	High profit that makes developers promote changes in norms						+

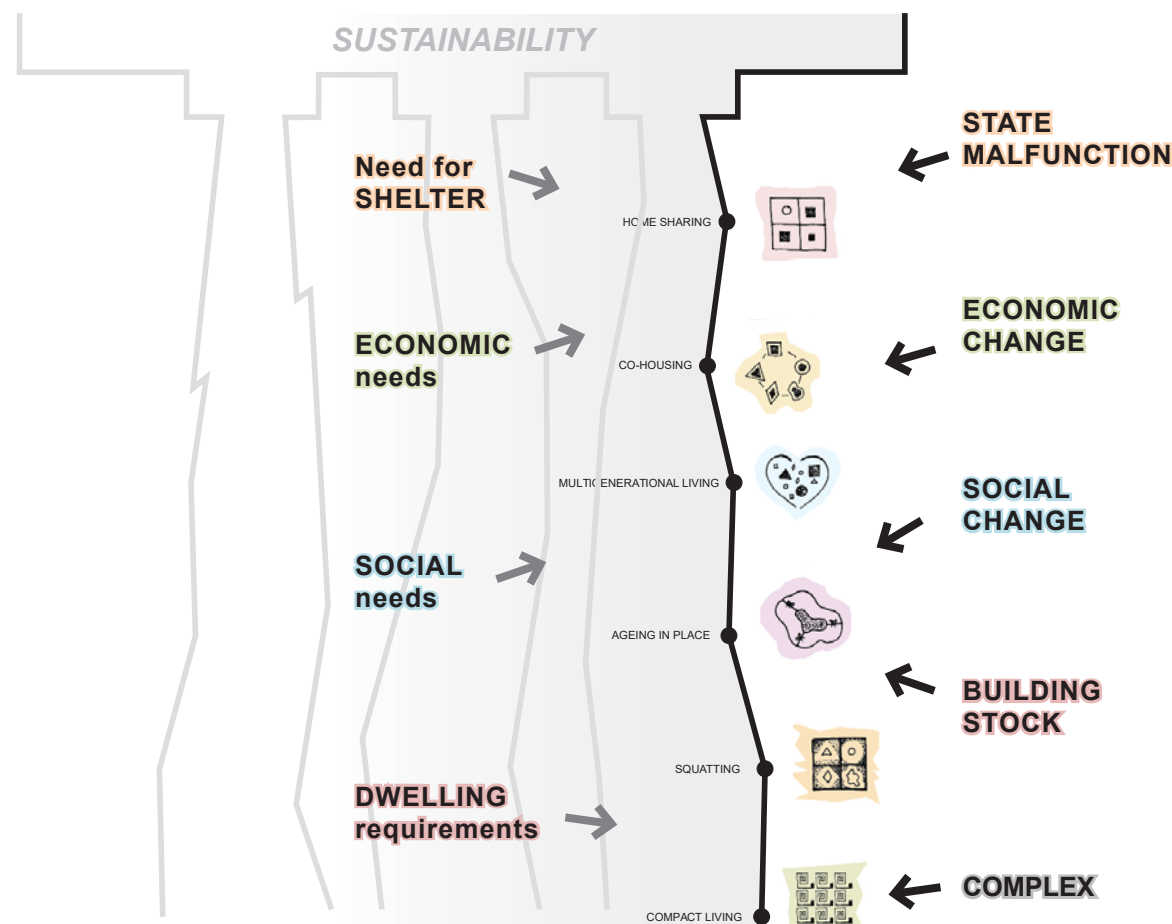
Again, in my analysis, **I concentrate on the Social change and types of alternative housing caused by it, but sometimes refer to other categories**. Otherwise, the thorough investigation of the relations within the tables (Table 1&2) would take too much space and shift my social sustainability focus towards other factors. Apparently, my 6 alternative housing practices indicate the following elements of the ongoing Social change: *later family formation; quickly ageing population; globalisation of job market and consequent labour mobility; rise in active population; longer active life for the elderly; rise in nuclear families; immigration crisis*. These are the global, objective, social processes that form different alternative housing options – in contrast to the more subjective categories discussed before. Likewise, in contrast, the social category in Table 2 establishes fewer patterns

among the features than in Table 2.

One of the findings is that **quickly ageing population** and **globalisation of job market** play role in most of the alternative housing trends and that **later family formation** goes next.

Evidently, **CO-HOUSING** is the leader by the number of global social challenges, to which it responds. The following changes participate in this trend's formation: *quickly ageing population; globalisation of job market and consequent labour mobility; rise in active population; longer active life for the elderly; rise in nuclear families.*

HOME SHARING and **MULTIGENERATIONAL LIVING** are next various; notably, they both indicate such processes as *later family formation; quickly ageing population; globalisation of job market and consequent labour mobility.* Other correlations are hard to find, as distribution of features looks rather random.



[102] Opposing internal and external forces find their unstable equilibrium in newly formed alternative housing trends

5.2 Potential future

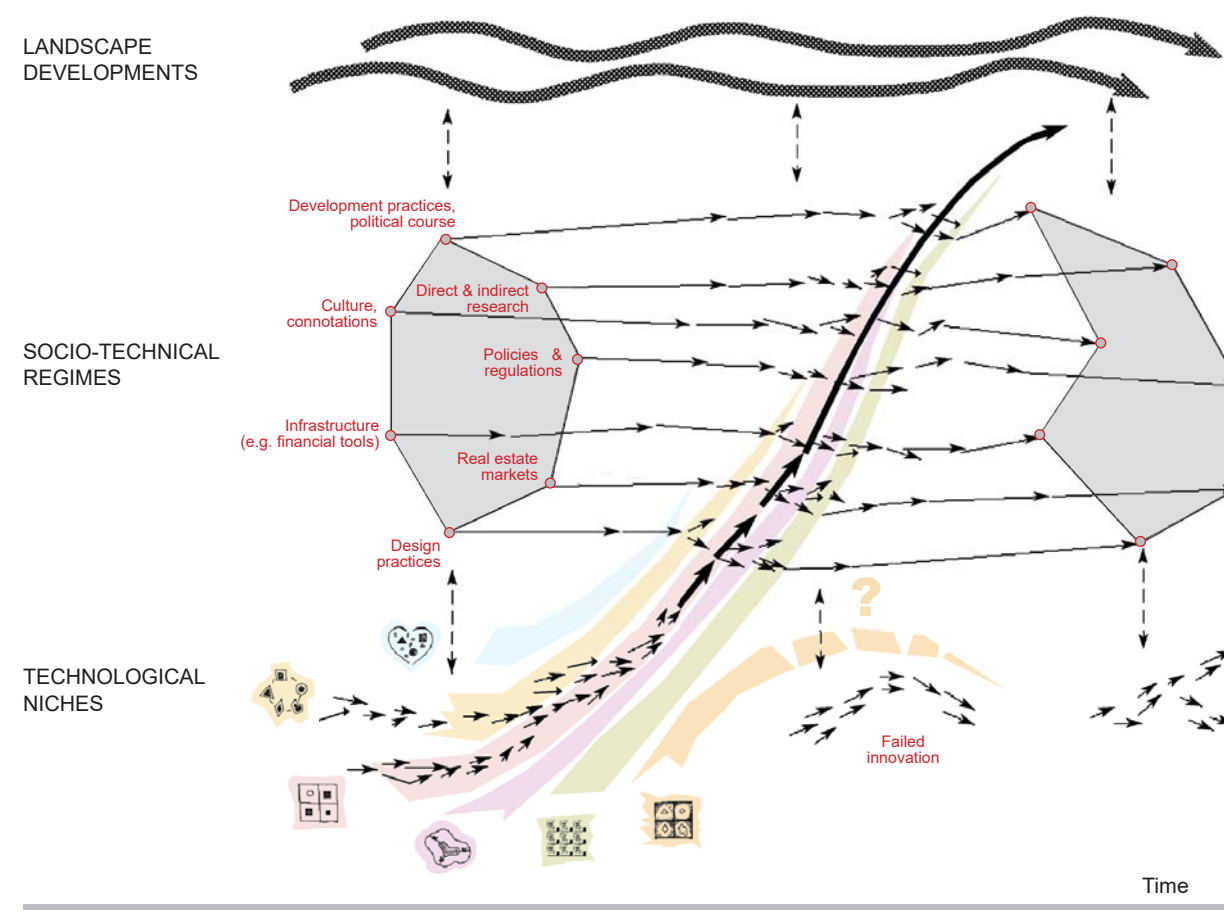
My work would not be accomplished without a few words about potential future of the alternative housing trends studied in this thesis. Before, I analysed internal and external forces that form them based on summaries 'What People Want' and 'What Causes This Trend'. Now, I look at the factors that help or distract these trends on their way towards conventional housing practices. For that, I use such parts of intermediate summaries as '(Potential) Flaws' and 'What Is Missing'. The benchmarks of reference projects presented in the body text and [NB!] comments also help and form the general notion of trends' overall development. Below, I apply all these factors to Technological Transition theory (TTT) by Frank W. Geels (Geels 2002), with its clear approach, established vocabulary, and visual references.

"Technological Transitions (TT) are defined as major technological transformations in the way societal functions such as transportation, communication, housing, feeding, are fulfilled. TT do not only involve technological changes, but also changes in elements such as user practices, regulation, industrial networks, infrastructure, and symbolic meaning" (Geels 2002, 1257).

Socio-technical perspective explains how TTs happen and what factors play role in the process. According to TTT, housing is a socio-technical configuration – a vast net of strongly connected elements that smoothly work together to fulfil some function (in this case – accommodation). Due to the strong connections between its elements, such configuration cannot be changed easily; revolutionary ideas have little chance to find their place there, because all elements of this configuration are adjusted to each other.

From that perspective, our everyday life is built upon ideas of conventional housing. These few types of dwellings are on the market, they have well-established mechanisms of financing, development, marketing, selling and buying, inheriting, insuring, registering etc. Architects, too, have well-established routines for designing them: codes, recommendations, restrictions and references. These housing types are recognised by authorities and have their clear paths to building permits.

Alternative types did not manage to gain their permanent place in this system (yet). Thus, difficulties they encounter include: no recognition by authorities, consequent absence of relevant norms and regulations, no financial tools to fund such projects, no administrative services that would help people lead these projects themselves – without special education (call for participants, paper work, meeting organisation and facilitation, funding, design corrections, site supervision etc.), and as a result, – no public recognition to promote trends. The circle closes.



[103] The scheme shows how alternative housing trends gradually change our reality. This TT involves complex processes, which makes outcomes rather unpredictable. Based on (Geels 2002, 1263, Fig.5)

The above graph (see |103|) illustrates the path of my exemplary 6 alternative housing trends towards conventional development practices (*Landscape Developments* level), as well as some milestones on their way. Importantly, it does not reflect the various nature of the trends and significant variety of the drivers behind them; similar positions achieved by trends can stem from very different reasons and consequently make those trends vulnerable to contrasting factors. Thus, below, I fulfil this gap with my explanation.

The biggest progress so far was made by **COMPACT LIVING**. It easily entered design practices in many countries, 'tamed' real estate markets, successfully managed to establish positive connotations (despite criticism and references to slums). Furthermore, the obvious lack of direct and indirect research did not prevent it from changing policies and regulations, so that in some countries it took a direct course towards conventional development practices, since politicians see **COMPACT LIVING** as an easy, populist, solution to housing shortage.

Although 'traditional' forms of **AGEING IN PLACE** are also supported (and often initiated) by political will, they progress more slowly. The obstacles include additional expenses from the budget, technical difficulties in old houses (where accessibility means are limited), and resistance on developers' side due to costly measures (in new developments). In some countries, the trend has difficulties changing the cultural regime; partially – due to historical associations between grey years and elderly care and partially – due to connotations of loneliness generated by unassisted ageing. At the same time, network-based forms of **AGEING IN PLACE** meant to overcome the latter problem are generally seen as secondary, hence rely more on volunteering and bottom-up initiatives than governmental support with the consequent inferiority in their development.

The progress of **HOME SHARING** is comparable to the previous two trends, although it is a truly bottom-up movement driven by economic and social needs of citizens. It has successfully created its own market that historically remains a grey zone in many countries, for it requires very simple infrastructure and easily finds its ways around existing regulations. At the same time, due to its long history, this alternative trend has very deep routes in international culture. In fact, historical forms of **HOME SHARING** already belong the *Landscape Developments* level and pull the new forms up. However, the latter (presented by especially designed developments built from scratch and global exchange networks) call for official recognition. That generates research investigation and creates first obstacles, when relevant policies are lobbied by connected businesses.

CO-HOUSING stays slightly behind. This diverse bottom-up trend with significantly positive social impact did establish some connections with design practices, entered real estate markets, and in some countries even managed to generate changes in relevant policies and regulations. However, in most countries, where **CO-HOUSING** exists, it has significant problems due to absence of supporting infrastructure and less – due to its connotations of alternative lifestyle.

MULTIGENERATIONAL LIVING, however, did not achieve even that. At the moment, it is closely associated with co-housing and only starts to gain recognition as a potential state tool (based on institutionalised units) against various social problems. As a result, it did not reach further than separate projects presented on the margins of real estate market as a periphery of co-housing. However, its recognition and following top-down programmes can change this situation. They could connect **MULTIGENERATIONAL LIVING** with e.g. ageing-in-place concept, which already has political support. That would immediately push this trend up, towards policies and regulations prefaced by research.

As for legalised **SQUATTING**, I chose it as a possible example of a failed innovation. Although, occasionally, this trend helped solving social and economic problems, it always met serious resistance due to the obvious challenges on the legal side. Thus, it would require a number of extreme factors collided simultaneously to

move from its initial stage towards real estate market. One example is severe shortage of housing coupled with lack of options. Another pair of factors is a genuine readiness in squatters to establish a constructive dialogue with authorities that meets mutual intentions in the local government. Only if these factors meet, **SQUATTING** has a chance to generate some legal changes (enter the realm of Policies & regulations) and overcome its highly negative connotations. Besides, even successful squat movements disappear within time. Either, the acute housing shortage is mildened and people manage to find some other option or, in case of very old and successful squats, they eventually receive legal status from the city and gradually transform into some traditional residential form. Thus, I reflect this potential decline in squatting qualities on the graph.

5.3 Role of architects

This part completes my research with an overview of the above results from an architectural vista. My main question here is **'What means do architects have to explore the positive social effect of the above alternative practices and to use it in "sustainable urban housing" of tomorrow (Nordic Declaration 2016)?'** To answer it, below, I summarise my earlier suggestions on 'What Architects Can' and refer to the previous parts of this chapter in support of my statements.

Apparently, architects work as activators and accelerators of social sustainability tools hidden in potential alternative housing trends. Together with urban planners, they perform **2 important functions**, namely **design** and **expertise**. That gives architects **2 channels to promote socially sustainable developments** based on alternative concepts and benefit various, sustainable, housing of tomorrow.

Design function allows architects some **direct influence through renovation, refurbishment or new development**. For instance, new inexpensive ideas for old stock refurbishment/renovation could give **AGEING IN PLACE** some positive impulse and accelerate its progress towards *TT landscape* (see 5.2 – Potential future). Likewise, functional layouts for **HOME SHARING** could activate its social powers and even move some forms of this trend closer to **MULTIGENERATIONAL LIVING**, since these two types are already close by their social impact (yet the latter shows a bit more variety (see 5.1 – Internal and external forces)). That would create family-like households without mutual disappointment common in conventional forms of housing used for sharing.

However, **design function can be performed only with some help from the city and with agreement on developer's side**. Experimental developments occur when cities pay some interest in them and consequently support unconventional ideas through necessary dispensations, special land lease conditions, or by providing a special status that allows a number of such options. **COMPACT LIVING** with its 'micro' apartments can be a good illustration to that. The latter trend is also favoured by developers, who are attracted by its profitability. However, it is not the case with **CO-HOUSING**, whose associated time- and energy-consuming negotiations with multiple stakeholders oppose the 'fast money' concept praised among developers. Thus, the outstandingly positive social impact of **CO-HOUSING** (see 5.1 – Internal and external forces) remains hidden, despite the variety of potential design ideas suggested by architects.

In such case, architects could use their **expert function** to change the situation in favour of socially sustainable housing options. This function includes the following **3 modes: research, dialogue, and promotion**. To make some alternative housing option competitive on the market (thus interesting for developers), these three modes should become consecutive stages of the relevant campaign proposed by architects and urban planners in order to improve social situation in the city by solving its housing problems sustainably.

- **Research** provides architects with analytical data on relevant aspects of the question. It should help establish unbiased opinions within architectural society and form key arguments important for the next stage - *dialogue*.
- Thus, by generating research data on the question, architectural society gives weight to their opinion in the *dialogue* with city authorities and other stakeholders. The findings shall provoke discussion in multiple circles: city, developers, relevant specialists and general public, which in this case is the 'end user'. Consequently, the dialogue stage is already the first step to *promotion*. Importantly, social sustainability as a key driver for development ideas gives architects an obvious advantage in the dialogue – as authorities cannot deny their duty to support social balance in their cities. At the same time, the positive effect incorporated in alternative housing, shall respond to the needs of the general audience and make the next step easier.
- **Promotion** stage requires a very diverse approach to popularisation of relevant housing concepts and should be naturally based on collaborations established during the previous stage. The measures introduced by cities, developers, and planners could range from conferences to Internet discussions, from local promotion campaigns to books and magazine articles that highlight the benefits of a certain alternative trend.

Evidently, each of these stages (whether performed in order or not) might well lead to some corrections in the initial idea and eventually shall shape it into a strong viable concept with a substantial number of supporters among authorities and citizens. In other words, this programme shall generate enough demand to trigger developers' interest and result in the first buildings. However, if the stages are performed partially or in a mixed order, result can be rather unpredictable – from weaker effect to some negative outcome, e.g. if the promotion campaign or negotiations with the city had no substantial support in research.

HOME SHARING, among other trends, could be an illustration of such regression, as its new forms approached discussions on city level with no significant research data to back up its social potential (see e.g. criticism on Airbnb). Although such mistakes are a part of alternative trends' development (due to their bottom-up nature), they delay their progress towards conventional housing practices, thus limit architects and urban planners in design tools for socially sustainable built environment.

5.4 Finnish practices

In terms of alternative housing, Finland shares European vector, although its demand for alternatives seems much lower than overall in Europe. It does not resemble any Scandinavian country in particular, but finds its own way based on traditions and local needs. That often results in unique solutions developed from alternative ideas. For instance, such Finnish initiatives as Oman Muotoinen Koti (HOME SHARING, CO-HOUSING, partially LEGALISED SQUATTING), Generations Block (MULTIGENERATIONAL LIVING), Oranssi (LEGALISED SQUATTING) present rich material for international experience exchange. Furthermore, some of them have already inspired similar projects in other countries.

Due to Finland's leading position in fight against homelessness, Finnish alternative trends mainly present a search for variety based on citizens' social needs. However, the introduced economy on social funding changes the situation and introduces more economic reasons for alternative practices. Notably, Finnish developers quickly react to the arising demands and already offer solutions with elements of the 'alternatives' studied in this thesis.

Conclusions

1. General

This thesis studied the following alternative housing trends: HOME SHARING, CO-HOUSING, MULTIGENERATIONAL LIVING, AGEING IN PLACE, SQUATTING, COMPACT LIVING. Results of the study suggest that all 6 trends perform the following 2 functions important for the city.

- A.** Their increasing popularity among citizens indicates significant changes within urbanised society and points at various demands that are not fulfilled by conventional housing options. (*Litmus function*)
- B.** They partially fulfil those demands, thus help to restore the balance in city's sustainability. (*Tool function*)

2. Social sustainability focus

- The detailed analysis of social forces demonstrates that these alternative housing practices work as a litmus test for social sustainability situation. They indicate a range of social needs and a number of ongoing social changes that similarly require unconventional housing solutions.
- At the same time, alternative housing partially fulfils unsatisfied social needs and helps people adapt to ongoing social changes; hence it restores social balance in citizens' lives and firms social sustainability of the whole neighbourhood - district - city.

3. Internal and External forces that shape alternative housing trends nowadays

- The trends appear at the edge between Internal forces (people's needs: *Need for shelter, Economic needs, Social needs, and Special dwelling requirements*) and External forces (changes beyond direct citizens' influence: *Economic change, Social change, Building stock, State malfunction, and Complex*) balancing them.
- Alternative housing identifies and strives to fulfil the following Social needs: *fight loneliness; feel secure; feel supported; live among like-minded people; have own rules; establish communality; feel independent; feel active; feel needed; have fun in their own way; need to feel heard/ noticed by authorities.*
- It also identifies and softens the following Social changes: *later family formation; quickly ageing population; globalisation of job market and consequent labour mobility; rise in active population; longer active life for the elderly; rise in nuclear families; immigration crisis.*
- Most trends indicate (and intend to overcome) such global changes as *quickly ageing population, globalisation of job market (with consequent labour mobility), and later family formation.* The most acute social needs revealed are *to fight loneliness* and *to feel supported*. Presumably, these sets of features are interrelated, although others do complicate their 'cause-effect' connections.

4. Key qualities and potential future of the studied alternative trends

- CO-HOUSING is the most socially-oriented trend among the 6 studied. It fulfils the most significant variety of social needs and simultaneously overcomes the biggest number of social changes (compared to other trends). However, despite its positive social effect, CO-HOUSING progresses rather slowly. Thus, supporting and developing urban CO-HOUSING ideas should be among priorities, once cities set the goal to better social impact of housing developments.

- COMPACT LIVING shows most progress among all 6 trends (Based on TTT) and is rather close to its conversion into a conventional housing option. The complex nature of this trend reveals the fewest social features and a variety of others, including strong dwelling- and economy-related roots. Consequently, this trend requires attention and a discreet approach in the cities concerned with the social impact of their built environment.
- HOME SHARING shows significant progress (mainly defined by social and economic advantages of its historical forms), as well as a promising future scenario, especially if its new forms generate more objective research and establish an argumentative dialogue with cities.
- MULTIGENERATIONAL LIVING, at the moment, demonstrates little progress outside its associations with CO-HOUSING. However, its potential connections to AGEING IN PLACE and HOME SHARING models could significantly accelerate the progress in both bottom-up and top-down schemes.
- Although SQUATTING fulfils a significant variety of social needs, it is also characterised by serious challenges. Therefore, even legalised SQUATTING is prone to decline, unless some extraordinary circumstances bring conscious measures in its support.
- AGEING IN PLACE, at the moment, relies on its traditional forms concerned with accessibility. They have a firmly established positive trajectory, but underrate social downsides of ageing. Socially-oriented forms, in turn, are still too weak to generate significant impact on built environment.

5. Role of architects

Architects have various means to activate and accelerate the positive social potential of alternative housing. This possibility stems from the *design* and *expert* functions performed by architects. *Design* means include using alternative concepts for renovation, refurbishment or new development. *Expert* means include research, dialogue, and promotion of alternative ideas based on intense collaboration with all other stakeholders, including general public.

Moreover, their expert function helps architects establish a correct development path for alternative trends – leading from objective research to structural changes in conventional housing practices. That enables architectural society to transform alternative housing trends into (social) sustainability tool meant to deliberately improve sustainability situation by locale.

6. Finnish experience

Finland demonstrates full awareness of the international alternative housing trends. Moreover, Finnish approach to alternative ideas is often distinct and results in exemplary projects on HOME SHARING, CO-HOUSING, MULTIGENERATIONAL LIVING, and LEGALISED SQUATTING. These projects enrich the international benchmark of alternative housing by illustrating how alternative ideas can be rethought and successfully adapted to local demands.

AFTERWORD

Despite the numerous obstacles on their way, alternative housing trends steadily progress towards their recognition by the market. A lecture series 'Designing for Shared Living: A New Perspective' proves that. I attended it at Space 10 in Copenhagen, Denmark, in April-May 2018, when a major part of this thesis was already finished. For this series the 'future living lab' SPACE 10 invited a number of experts to explore the potential of shared living in front of the global challenges. The questions on the agenda were much in line with my present research:

"Could shared living spaces and services provide a solution? [to tackle urban problems] Could co-living models help house our increasingly ageing societies? Could shared living even foster healthier, happier communities? If so, how might we encourage more inter-generational co-living spaces? Do we need to adjust our thinking about living spaces and sharing? Do architects and planners have a responsibility to change perceptions of the spaces we inhabit? Should we rethink access to ownership and savings through new financial and sharing technologies?" (Designing for Shared Living)

Among other bright speakers, I was especially glad to hear Hilary Vernon-Smith, Grace Kim, and Lars Lundbye. Hilary Vernon-Smith presented OWCH – a London-based co-housing community for women over 50 (see reference projects for 4.2.2.3 – Niche Communities). As an active co-housing member, she was an invaluable source of insights about community-building process, as well as organisational, financial, administrative, and many other difficulties that OWCH came through before the project was accomplished. At the same time, she proved that their co-housing community had an outstanding positive social impact on all its elderly inhabitants.

Grace Kim shared a very similar story about Capitol Hill Urban Cohousing – *"an intergenerational sustainable community in Seattle"*, where she lives. Again, it was a story of perseverance and hope, but also a story of mutual support, friendship, fun, and great satisfaction. It was obvious that co-housing added many happy moments to her everyday life. In fact, in her stories, neighbours appeared more like old friends or even one big family. The same impression I had after Ms Vernon-Smith's speech.

Although the above two co-housing communities exist in different countries, they encountered very similar problems on their way to success. Lack of expertise and professional guidance, definitely, played their negative role. When I asked Ms Vernon-Smith if OWCH had any difficulties at design stage, she said: *"well, I was the only one who could read drawings, so I did my best to explain what was what to others; we had to draw plans 1:1 on the floor and 'walk' inside our future homes"*.

The biggest obstacles, however, concerned administrative and financial questions; they caused most uncertainty and longest delays. In that respect, speech 'System Error in the Housing Market' by Lars Lundbye²⁷ was a very promising addition to the discussion. He stated that *"the real estate market's one-size-fits-all buildings and services do not match the need anymore"*²⁸ (Almenr.dk) and presented Almenr - a Copenhagen-based investment company that empowers people with relevant tools so that they can create co-housing communities more easily and challenge the centralised monopolies on the market.

Almenr's online platform divides the whole community-building process into 5 clear steps and effectively guides future co-housers through all of them. The guidance includes: online and offline matching service²⁹; help with design and co-design; clear financial and law procedures based on a legal status of 'building community'; transparent supervision process at the building site; and help with establishing 'operating community' after moving in.

"Economics and co-creation have radically changed the hotel industry (think AirBnB), the transport industry (think GoMore), the music industry (think Spotify), the publishing industry (think Wikipedia), etc. With Almenr, we can do the same in the real estate industry." Lars Lundbye, CEO, Blå Himme (Almenr.dk)

In the context of this research, the Space 10 event shows that architectural society already admits the positive social impact of alternative housing trends, although at the moment the relevant discussion involves mainly specialists. At the same time, presented Almenr's practice indicates that CO-HOUSING, as a TT driver, is ready to enter the realm of housing infrastructure (see 5.2 – Potential Future), which makes it one step closer to conventional housing options. Diverse and socially efficient urban housing options.

²⁷ May 4, 2018. Space 10 (Flæsketorvet 10, 1711 København). Available at: https://www.youtube.com/watch?time_continue=3&v=eZcr7sw6Pvs.

²⁸ In m work, I call this factor *Developer's market* (see Chapter 5).

²⁹ Based on especially designed tests that identify the true personal needs of each co-houser.

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